

003

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☐  
(highlight changes)

## APPLICATION FOR PERMIT TO DRILL

1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-47152	
8. TYPE OF WELL: OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> OTHER _____ SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A	
2. NAME OF OPERATOR: ST OIL COMPANY		7. UNIT or CA AGREEMENT NAME: N/A	
3. ADDRESS OF OPERATOR: 1801 BROADWAY, SUITE 600		8. WELL NAME and NUMBER: EVINRUDE 12-36-74	
CITY DENVER STATE CO ZIP 80202		9. FIELD AND POOL, OR WILDCAT: WILDCAT	
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 1910 FNL & 1850 FWL AT PROPOSED PRODUCING ZONE: SAME		10. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SENW 22 31s 23e SL	
13. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 15 AIR MILES NNW OF MONTICELLO		11. COUNTY: SAN JUAN	
12. STATE: UTAH			
14. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 590'	15. NUMBER OF ACRES IN LEASE: 1,440	16. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40	
17. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) N/A'	18. PROPOSED DEPTH: 5,428'	19. BOND DESCRIPTION: \$20,000	
20. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 6,498' GR	21. APPROXIMATE DATE WORK WILL START: AUGUST 15, 2002	22. ESTIMATED DURATION: 2 WEEKS	

## 23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT	SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT
12-1/4	9-5/8 J/K-55 36#	1,350'	LITE & STAND. 500 SX VARY VARY
7-7/8	5-1/2 K-55 15.5#	5,428'	CLASS C 200 SX 1.56 13

Amended  
7-20-02  
jc

## 24. ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER     | <input checked="" type="checkbox"/> COMPLETE DRILLING PLAN                                   |
| <input checked="" type="checkbox"/> EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER | <input type="checkbox"/> FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER |

NAME (PLEASE PRINT) BRIAN WOOD	PHONE (505) 466-8120	TITLE CONSULTANT
SIGNATURE <i>Brian Wood</i>	DATE 7-20-02	

(This space for State use only)

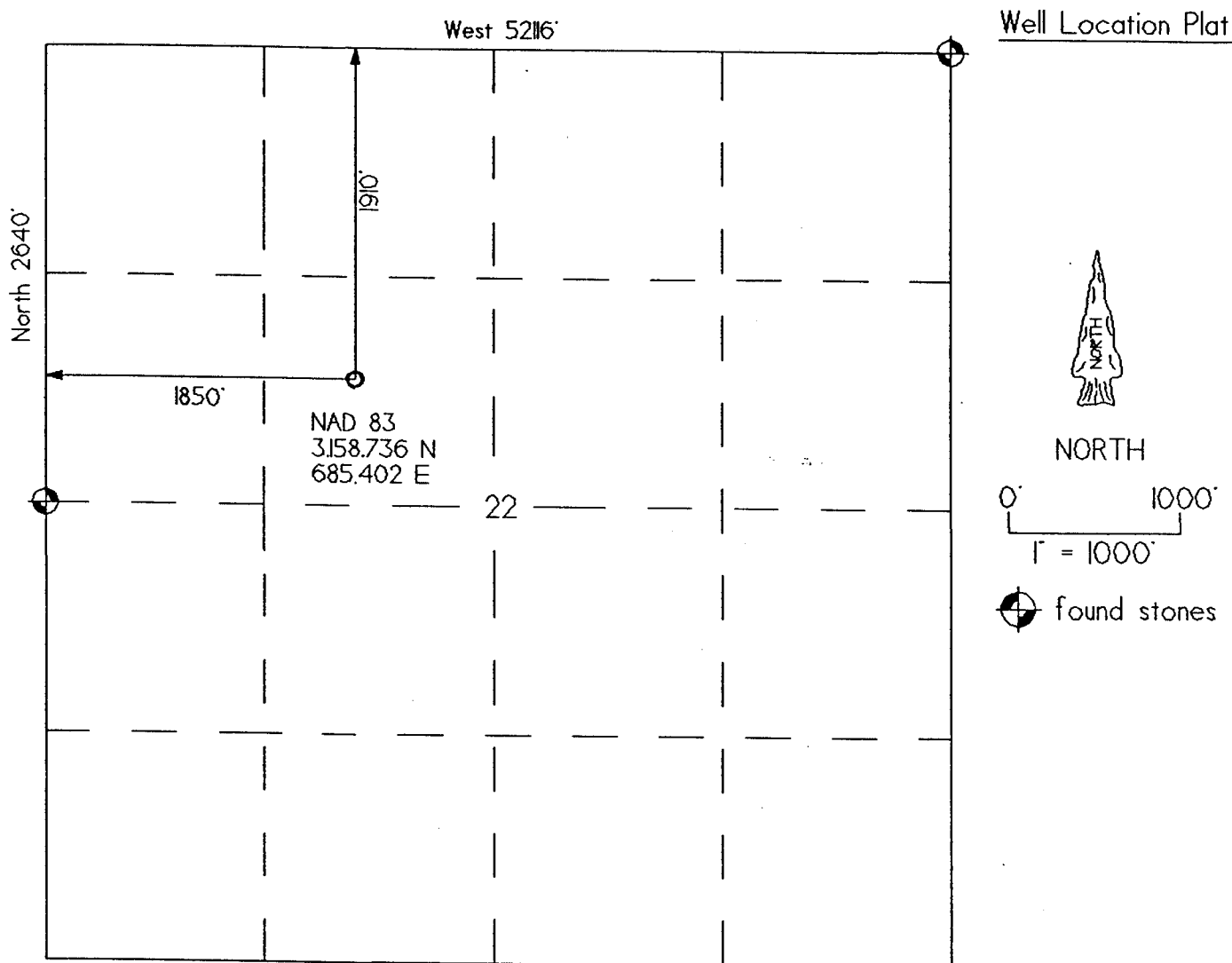
API NUMBER ASSIGNED: 43-037-31825

APPROVAL:

RECEIVED

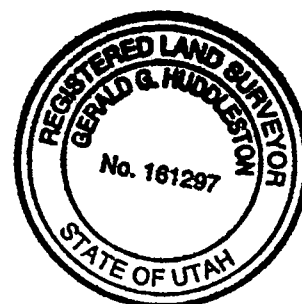
JUL 22 2002

DIVISION OF  
OIL, GAS AND MINING



Well Location Description

ST OIL COMPANY  
Marie Ogden State # 1  
1910' FNL & 1850' FWL  
Section 22, T.31 S., R.23 E., SLM  
San Juan County, UT  
6498' grd. el. (from GPS)

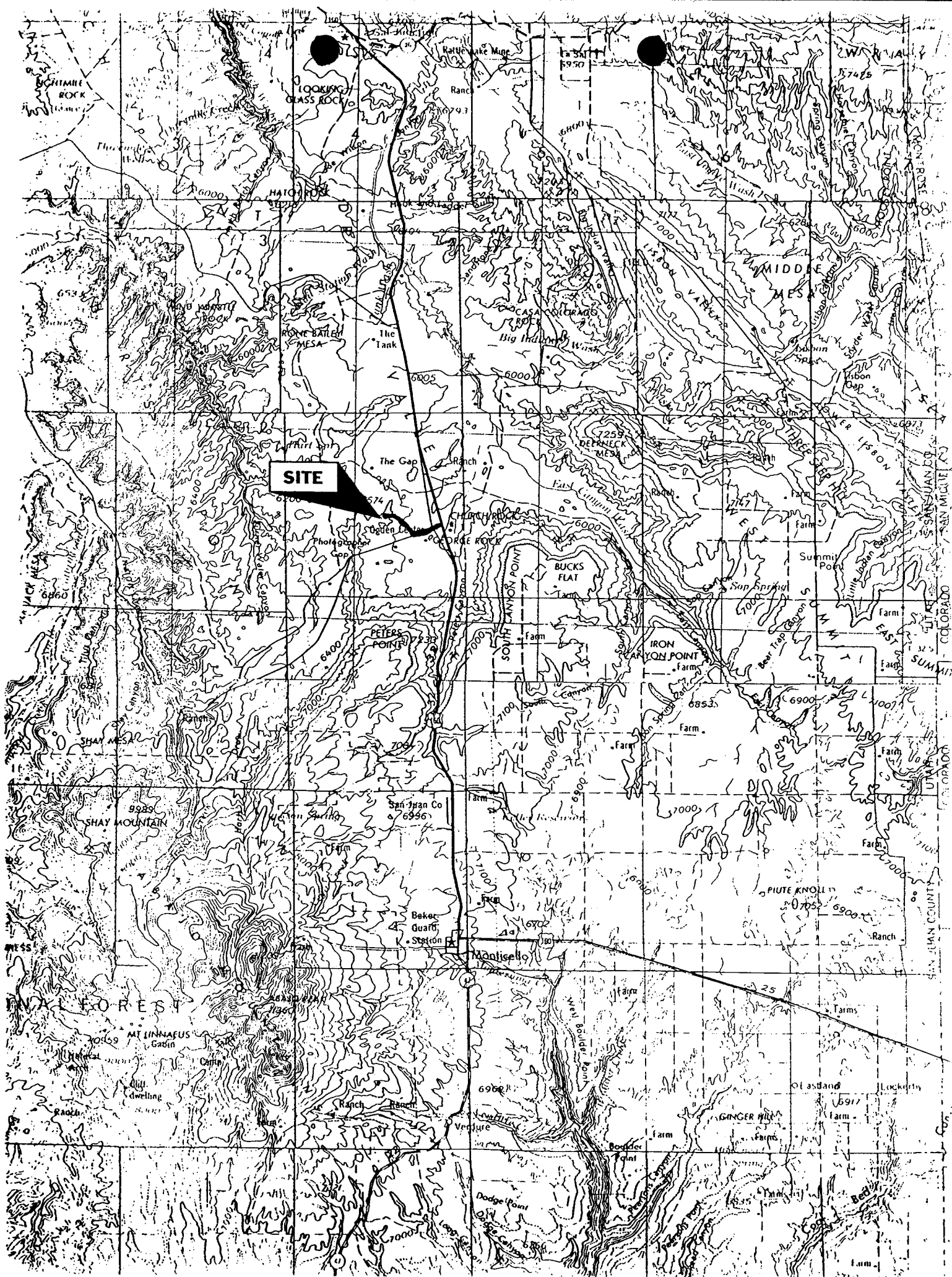


8 May 2002

Gerald G. Huddleston  
Gerald G. Huddleston, LS

The above is true and correct to my knowledge and belief.

HUDDLESTON LAND SURVEYING - BOX KK - CORTEZ, CO - (970) 565 -3330



ST Oil Company  
Marie Ogden State #1  
1910' FNL & 1850' FWL  
Sec. 22, T. 31 S., R. 23 E.  
San Juan County, Utah

PAGE 1

CONFIDENTIAL - TIGHT HOLE

## Drilling Program

### 1. FORMATION TOPS

The estimated tops of important geologic markers are:

<u>Formation Name</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
Entrada/Carmel Ss	00'	12'	+6,498'
Navajo Ss	413'	425'	+6,085'
Chinle Sh	1,333'	1,345'	+5,165'
Cutler Ss	1,450'	1,462'	+5,048'
Upper Ismay	5,053'	5,065'	+1,445'
Lower Ismay	5,212'	5,224'	+1,286'
Lo. Ismay - top anhydrite	5,098'	5,110'	+1,400'
Lo. Ismay - base anhydrite	5,113'	5,125'	+1,385'
Gothic shale	5,312'	5,324'	+1,186'
Desert Creek	5,362'	5,374'	+1,136'
Lo. Desert Creek salt	5,422'	5,434'	+1,076'
Total Depth (TD)*	5,428'	5,440'	+681'

\* all elevations reflect the proposed graded ground level of 6,498'

### 2. NOTABLE ZONES

Oil and gas are goals in the Ismay and Desert Creek. Fresh water may be found in the Entrada to Navajo interval. Oil and gas shows which appear to the well site geologist to be commercial will be tested. All fresh water and prospectively valuable minerals will be recorded by depth and protected with casing and cement.

### 3. PRESSURE CONTROL

ST Oil Company  
Marie Ogden State #1  
1910' FNL & 1850' FWL  
Sec. 22, T. 31 S., R. 23 E.  
San Juan County, Utah

PAGE 2

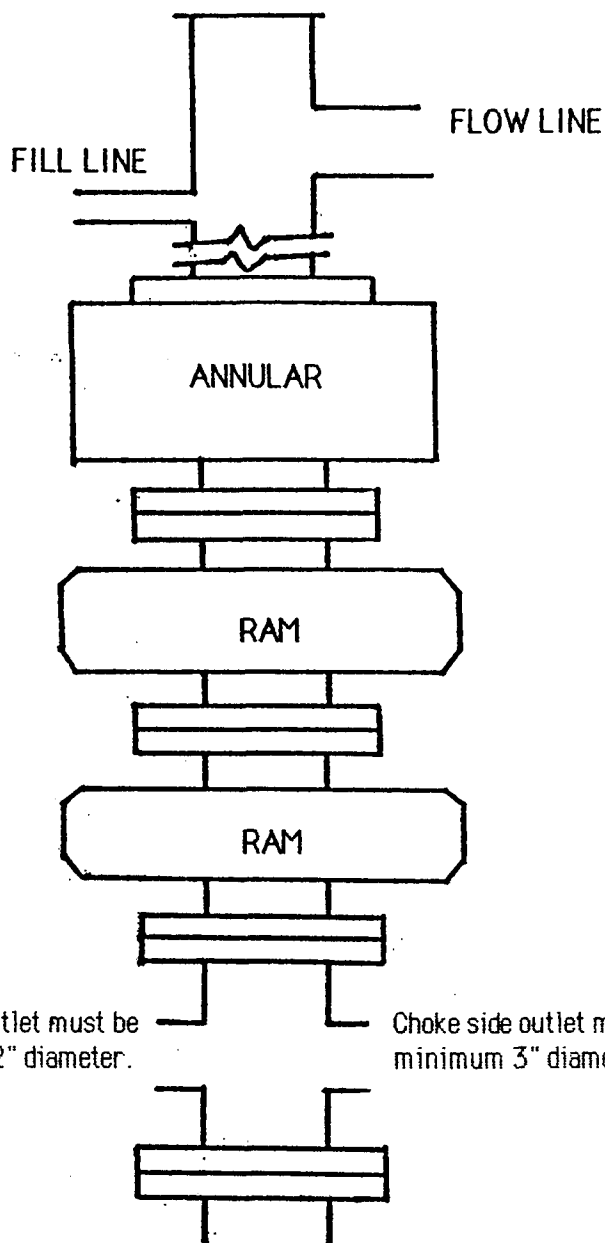
CONFIDENTIAL - TIGHT HOLE

A 13-5/8" 3,000 psi double ram and annular preventer with a 3,000 psi choke manifold will be used. A diagram of a typical BOP is on Page 3. Actual model will not be known until bid is let. Procedures are ...

- Nipple up BOP and all equipment
  - Test to 250 #/3,000#
  - Test Hydril to 2,000 psi
  - Log in I. A. D. C. book
- Drill shoe joint
  - Test to 1,500 psi for 30 minutes
  - Log in I. A. D. C. book
- Activate BOPs every 24 hours or on trips and log in I. A. D. C. book
- Install hand wheels and lay straight flare lines before drilling out
- Conduct weekly BOP drills with each crew and log in I. A. D. C. book
- Have floor valve and wrench on floor at all times
  - Floor valve must be in open position
- Before drilling surface casing shoes, blind rams will be closed. BOP and surface casing will be pressure tested to 1,500 psi for a total test time of 30 minutes if not previously tested by Halliburton during cement job.
- Studs on all well head and BOP flanges will be checked for tightness each week
- Hand wheels for locking screws will be installed and operational
- Entire BOP and well head assembly will be kept clean of mud
- A drill stem safety valve in the open position will be available
- Call Utah Division of Oil, Gas, & Mining (801 538-5340) before testing BOPs

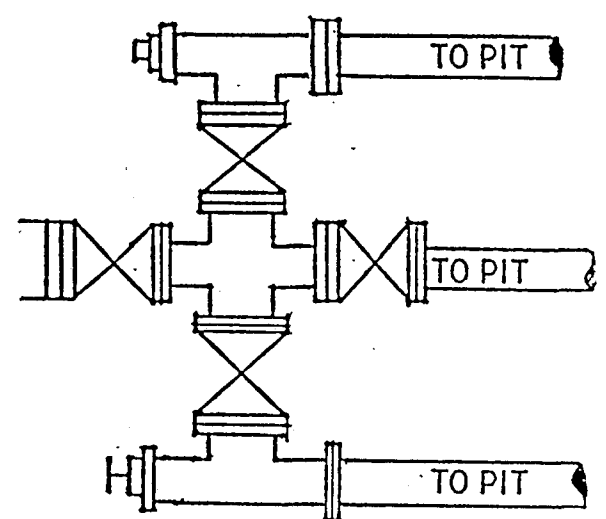
4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Burst</u>	<u>Collapse</u>	<u>Weight</u>	<u>Grade</u>	<u>Thread</u>	<u>Barrel/Foot</u>	<u>Depth</u>
20"	13-3/8"				Conductor Pipe			60'
12-1/4"	9-5/8"	3,520	2,020'	36#	J or K-55	S T & C	0.0773	1,350'
7-7/8"	5-1/2"	4,052	3,927	15.5 #	K-55	L T & C	0.0240	5,440'



TYPICAL BOP STACK  
& CHOKE MANIFOLD

There will be at least 2 chokes and 2 choke line valves (3" minimum). The choke line will be 3" in diameter. There will be a pressure gauge on the choke manifold.



Kill line will be minimum 2" diameter and have 2 valves, one of which shall be a minimum 2" check valve.

Upper kelly cock will have handle available.  
Safety valve and subs will fit all drill string connections in use.  
All BOPE connections subjected to well pressure will be flanged, welded, or clamped.

ST Oil Company  
Marie Ogden State #1  
1910' FNL & 1850' FWL  
Sec. 22, T. 31 S., R. 23 E.  
San Juan County, Utah

PAGE 4

CONFIDENTIAL - TIGHT HOLE

Call the Utah Division of Oil, Gas, & Mining at (801) 538-5340 before running casing.

Surface casing will be cemented to the surface. Procedures are ...

- Use guide shoe. Insert float separated by one joint
- Casing fill should be checked at each joint when running
- Place centralizers 5' off the bottom and on the 1st, 2nd, 3rd, & 5th joints
- Baker-Loc guide shoe on both sides of collar between 1st and 2nd joints
- After casing is run, then circulate at least once until cuttings are clean
- Reciprocate pipe while circulating
- Lead with 300 sacks Halliburton Light + 2%  $\text{CaCl}_2$  + 2% bentonite + 1/4 pound per sack Cello-Flake mixed at 12.3 pounds per gallon, 2.1 cubic feet per sack, and 11.66 gallons per sack water
- Tail with 200 sacks standard cement + 1%  $\text{CaCl}_2$  + 1/4 pound per sack Cello-Flake mixed at 15.6 pounds per gallon, 1.19 cubic feet per sack, and 5.22 gallons per sack water
- If cement (100% excess) drops from surface, do 1" top job after 2 hours
- Release pressure, if float does not hold, then trap pressure equal to final displacement pressure and hold for six hours
- Surface casing can be pressure tested with cementing service pump truck immediately after checking float to 1,500 psi for 30 minutes. This will eliminate testing casing during BOP test.
- W.O.C. time will be six hours before nipping up
- Total time will be 12 hours before running BOP and drilling out

Production casing will be cemented to 500' above the top of the Upper Ismay. Procedures are ...

- All joints re to be inspected for damaged threads, rabbited, and properly doped with thread compound.
- Two 20' pup joints will be put into the string at a depth to be decided later
- Mill scale and varnish from casing where it crosses any potential pay zones
- Pump 10 bbl mud flush, 20 bbl mud flush, 10 bbl flush, tail, wash line @ cement head, displace

ST Oil Company  
Marie Ogden State #1  
1910' FNL & 1850' FWL  
Sec. 22, T. 31 S., R. 23 E.  
San Juan County, Utah

PAGE 5

CONFIDENTIAL - TIGHT HOLE

- Tail with  $\approx 200$  sacks 50/50 poz mix with 5 pounds per sack gilsonite + 0.6 pounds per sack Halad 9 + 0.2 pounds per sack CFR-3 + fluid loss additive. Mix at 13 pounds per gallon, 1.56 cubic feet per sack, and 7.3 gallons water per sack. Theoretical excess = 90%. Actual volume will be based on caliper log with 5% excess.
- Halliburton will provide float, plugs, and shoe equipment. A differential fill float shoe will be on the bottom of the string. A differential float collar will be set two joints above the shoe if sufficient rat hole exists below the lowest productive zone.
- Centralizers will be placed on the shoe joint, top of the #2 and #3, and continue through and above the pay zones at 90'.

5. MUD PROGRAM

<u>Interval</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>	<u>Type</u>
0-1350'	8.3 - 8.7	27-32	N/C	Fresh H2O gel lime spud mud, pH 9
1350'-TD	8.4 - 10.0	38-44	8 cc	Fresh water gel & PHPA, SAPP, etc

Samples will be collected by the rig crew until the base of surface casing. Samples will be collected by a mud logger every 10' from  $\approx 1,350'$  to TD.

6. CORING, TESTING, & LOGGING

Two conventional cores may be cut in the Lower Ismay and Desert Creek. Drill stem tested if warranted. Array Induction - GR logs will be run from TD to base of surface casing. Compensated Neutron - Litho Density - GR logs will be run from TD up hole  $\approx 2,500'$ . Sonic Log - GR will be run from TD to base of surface casing.



ST Oil Company  
Marie Ogden State #1  
1910' FNL & 1850' FWL  
Sec. 22, T. 31 S., R. 23 E.  
San Juan County, Utah

PAGE 6

CONFIDENTIAL - TIGHT HOLE

7. DOWN HOLE CONDITIONS

No abnormal temperatures or pressures or hydrogen sulfide are expected. Maximum pressure will be  $\approx 2,200$  psi. Hole deviation will be  $\leq 1^\circ$  to 500'. Directional surveys will be taken as needed and at TD.

8. OTHER INFORMATION

The anticipated spud date is August 15, 2002. It is expected it will take  $\approx 2$  weeks to drill and  $\approx 2$  weeks to complete the well.

Call the Utah Division of Oil, Gas, & Mining (801 538-5340) before plugging and abandoning the well.

ST Oil Company  
Marie Ogden State #1  
1910' FNL & 1850' FWL  
Sec. 22, T. 31 S., R. 23 E.  
San Juan County, Utah

PAGE 7

CONFIDENTIAL - TIGHT HOLE

## Surface Use Plan

### 1. DIRECTIONS (See Pages 12 & 13)

From the Monticello, go North 14 miles on US 191 to U-211  
Then turn left and go West 0.95 mi. on paved U-211 to a faint dirt road  
Then turn right and go NW 0.85 miles on a partially reclaimed dirt road  
Then turn right and go NE 250' on a jeep trail  
Then turn left and go N 500' on a less obvious jeep trail  
Then switch back 75' NE away from the jeep trail  
Then switch back 75' NW onto a rock bench  
Then follow an old seismic trail W 1,675'  
Then detour S away from the trail for 350'  
The return to the seismic trail and continue W 300'  
Then turn left and go SW cross country 125' to the proposed well

Roads will be maintained to a standard at least equal to their present condition.

### 2. ROAD WORK

The dirt contractor will call the archaeologist (CASA @ 970-565-9229) at least 48 hours before starting construction. The archaeologist will fence an archaeology site on the north side of the pad on top of the mesa before starting construction. The archaeologist will monitor construction.

The junction of the dirt road and U-211 will be upgraded. The first 50' of dirt road will be surfaced with 6" of pit run and 3" of gravel. Depths are before compaction.

Existing water dips in the dirt road will be repaired. Dips will be skewed to

ST Oil Company  
Marie Ogden State #1  
1910' FNL & 1850' FWL  
Sec. 22, T. 31 S., R. 23 E.  
San Juan County, Utah

PAGE 8

CONFIDENTIAL - TIGHT HOLE

drain, at least half in cut, and broad enough so a tractor-trailer does not high center. A new water dip will be built just north of the junction of the old well road and jeep trail to keep run off from the P & A well from running down ST's portion of the road.

The road will initially be flat bladed with a 15' wide running surface. Maximum disturbed width will be 30'. Maximum cut or fill is 5'. Maximum grade will be 8%. No culverts, cattle guards, or turn outs are needed now. If production results, then it will be upgraded to all weather state and BLM standards.

### 3. EXISTING WELLS (See Page 13)

There are two plugged and abandoned wells and one water well within a mile radius. There are no existing oil, gas, or injection wells within a mile.

### 4. PROPOSED PRODUCTION FACILITIES

A well head, pump, separator, and tank battery will be installed. All will be painted a flat juniper green color. Tanks will be surrounded by an impermeable dike with sufficient capacity to hold 150% of the volume of the largest tank within the dike.

### 5. WATER SUPPLY

ST will use Guy Tracy's permitted existing 320' deep water well just east of the fairgrounds in SESE 30-33s-24e (#09-1038, #09-1224).

### 6. CONSTRUCTION MATERIALS & METHODS (See Pages 14 & 15)

Dirt contractor will notify archaeologist (CASA at 970-565-9229) at least

ST Oil Company  
Marie Ogden State #1  
1910' FNL & 1850' FWL  
Sec. 22, T. 31 S., R. 23 E.  
San Juan County, Utah

PAGE 9

CONFIDENTIAL - TIGHT HOLE

48 hours before construction starts. Archaeologist will fence off archaeology site and point out road detour on mesa top.

Topsoil and brush will be stripped and stockpiled west of the pad. A ditch will be cut along the west side of the pad.

If needed, the reserve pit will be lined a minimum 12 mil liner or with at least 24 tons of commercial bentonite worked into 3:1 sides. No liquid hydrocarbons will be discharged to the pit, pad, or road. Should hydrocarbons escape, they will be cleaned up and removed within 48 hours.

The pit will be fenced 48" high on 3 sides with 32" high woven wire topped with 2 smooth wire stands 4" and 16" above the woven wire. Steel posts will be set  $\approx 16.5'$  apart. Corner posts will be  $\geq 6"$  O. D. wood and anchored with a dead man. The 4th side will be fenced the same when drilling stops. The fence will be kept in good repair while the pit dries.

#### 7. WASTE DISPOSAL

Once dry, contents of the reserve pit will be buried in place.

Human waste will be disposed of in chemical toilets, which will be hauled to a state approved dump station. All trash will be placed in a portable trash cage. It will be hauled to the county landfill. There will be no trash burial or burning.

#### 8. ANCILLARY FACILITIES

There will be no air strips or camps. Camper trailers may be on location for the company man, tool pusher, and mud loggers.

ST Oil Company  
Marie Ogden State #1  
1910' FNL & 1850' FWL  
Sec. 22, T. 31 S., R. 23 E.  
San Juan County, Utah

PAGE 10

CONFIDENTIAL - TIGHT HOLE

#### 9. WELL SITE LAYOUT

See PAGES 14 and 15 for depictions of the well pad, cross section, cut and fill diagram, reserve pit, trash cage, access onto the location, parking, living facilities, and rig orientation.

#### 10. RECLAMATION & REVEGETATION

Upon completion of drilling, the well site will be cleared of all debris, material, and junk not needed for production.

Reclamation will start when the reserve pit is dry. All areas not needed for production will be back filled, contoured to natural contours, and reserved topsoil spread. If the well is a producer, then enough topsoil will be saved to reclaim the rest of the pad. The topsoil pile and all reclaimed areas will be broadcast seeded between October 1 and February 28 with the following mix. Sown areas will be left rough and lightly harrowed (4" deep) after seeding.

- 2 lb/ac galleta grass
- 4 lb/ac Indian ricegrass
- 1 lb/ac four wing saltbush
- 1/2 lb/ac scarlet globe mallow
- 1 lb/ac sand dropseed

#### 11. SURFACE OWNER

Well and the dirt road in SENW and NESE Section 22 is on SITLA and on lease. That portion of the dirt road in Section 23 is on SITLA and off lease for which a right of entry application has been filed. The remainder of the dirt road is on BLM for which a road right-of-way application has been filed. Utah Department of Transportation has approved driveway at U-211.

ST Oil Company  
Marie Ogden State #1  
1910' FNL & 1850' FWL  
Sec. 22, T. 31 S., R. 23 E.  
San Juan County, Utah

PAGE 11

CONFIDENTIAL - TIGHT HOLE

12. OTHER INFORMATION

The nearest hospital is a half hour drive away in Monticello. It is 3 blocks northwest of the intersection of US 666 and US 191. Hospital phone number is (435) 587-2116. Or dial 1-800-332-1911 from anywhere in San Juan County, Utah.

13. REPRESENTATION

Anyone having questions concerning the APD should call:

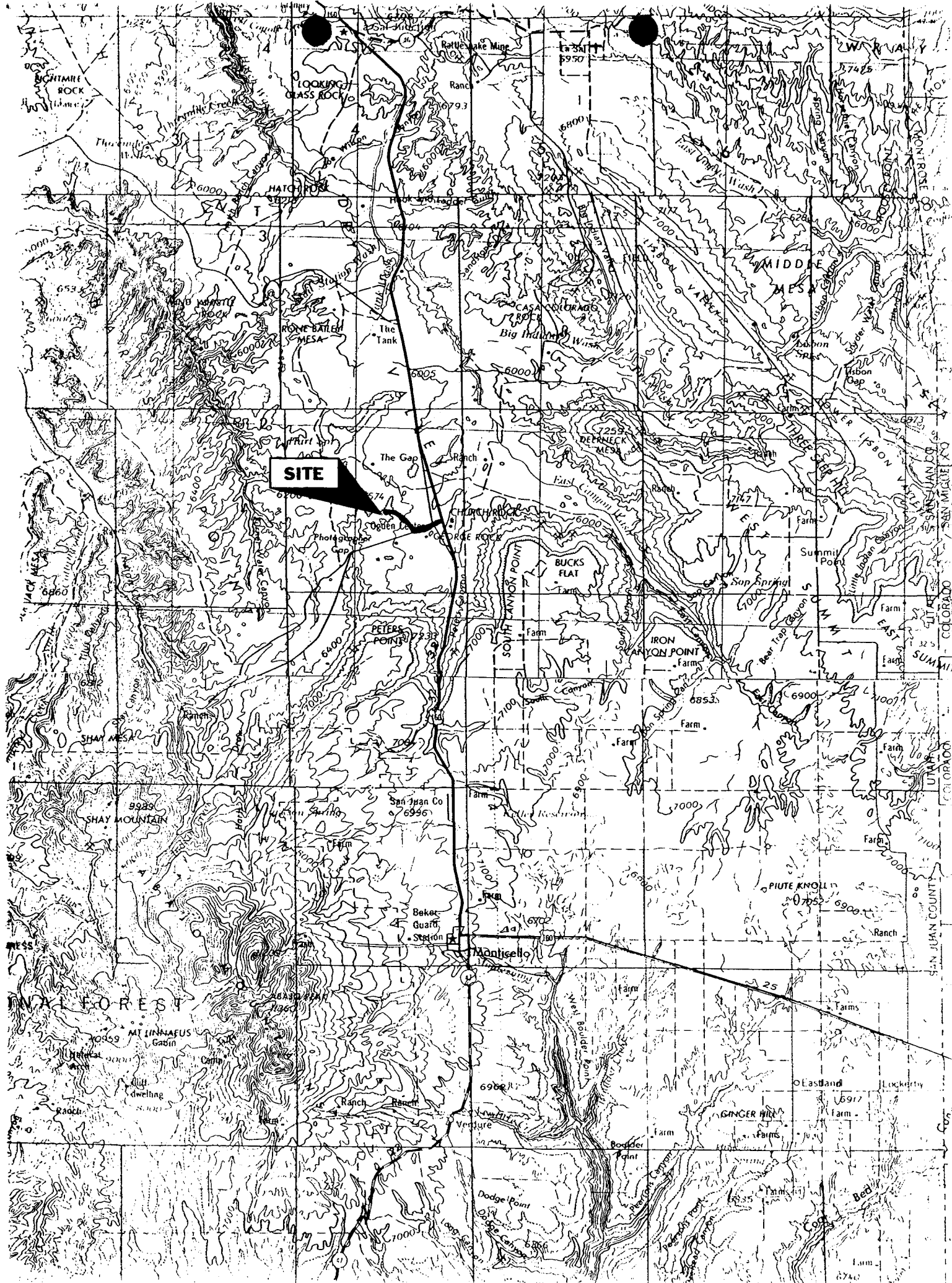
Brian Wood, Consultant  
Permits West, Inc.  
37 Verano Loop  
Santa Fe, NM 87508  
(505) 466-8120      FAX: (505) 466-9682      Cellular: (505) 699-2276

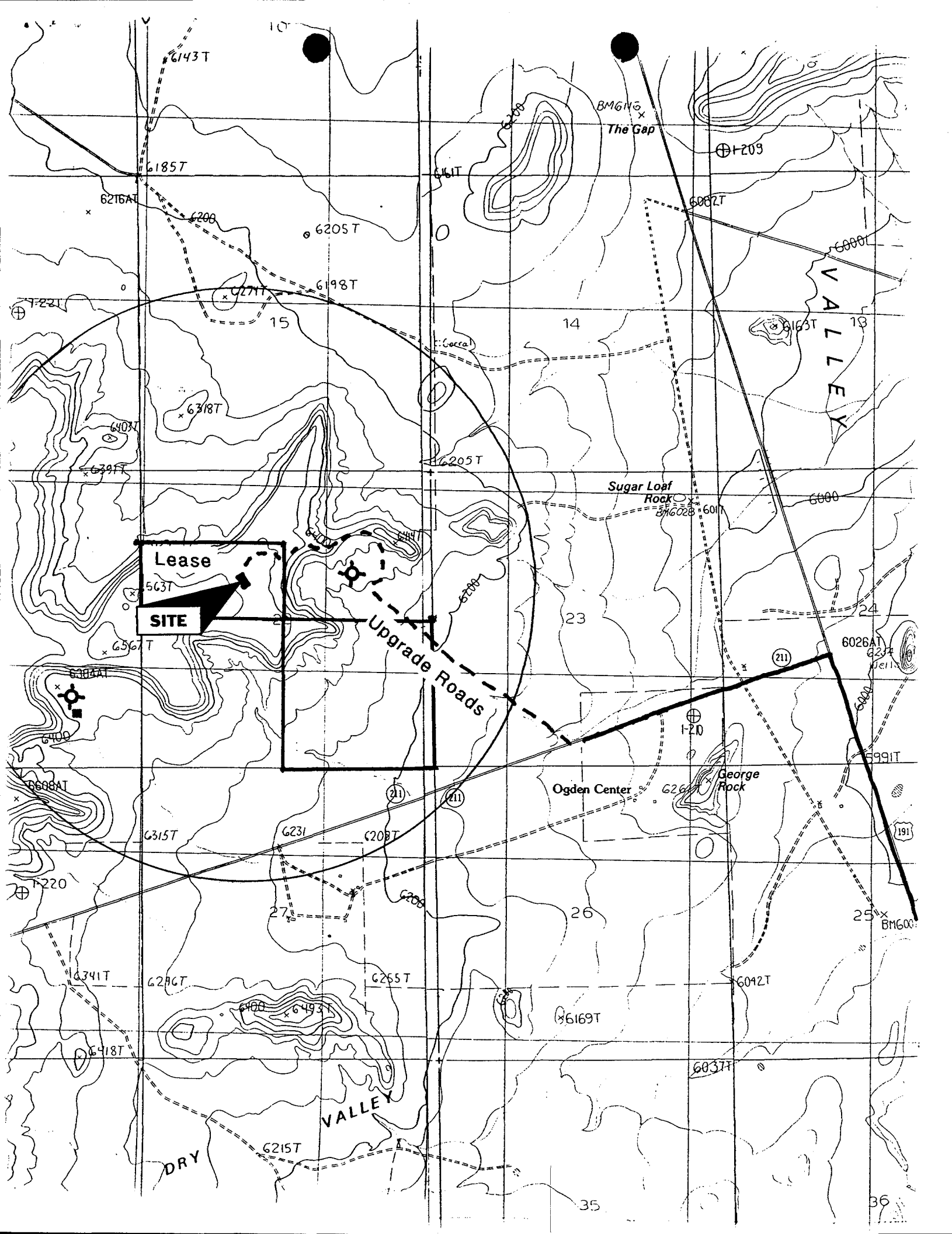
The company representative is:

Rich Ferris  
ST Oil Company  
1801 Broadway, Suite 600  
Denver, Co. 80202  
(303) 296-1908      FAX: (303) 296-0329      Cellular: (303) 618-2925

The well site geologist will be present from  $\approx$ 2,800' to TD. He will be:

Gene Stevenson (435) 672-2277



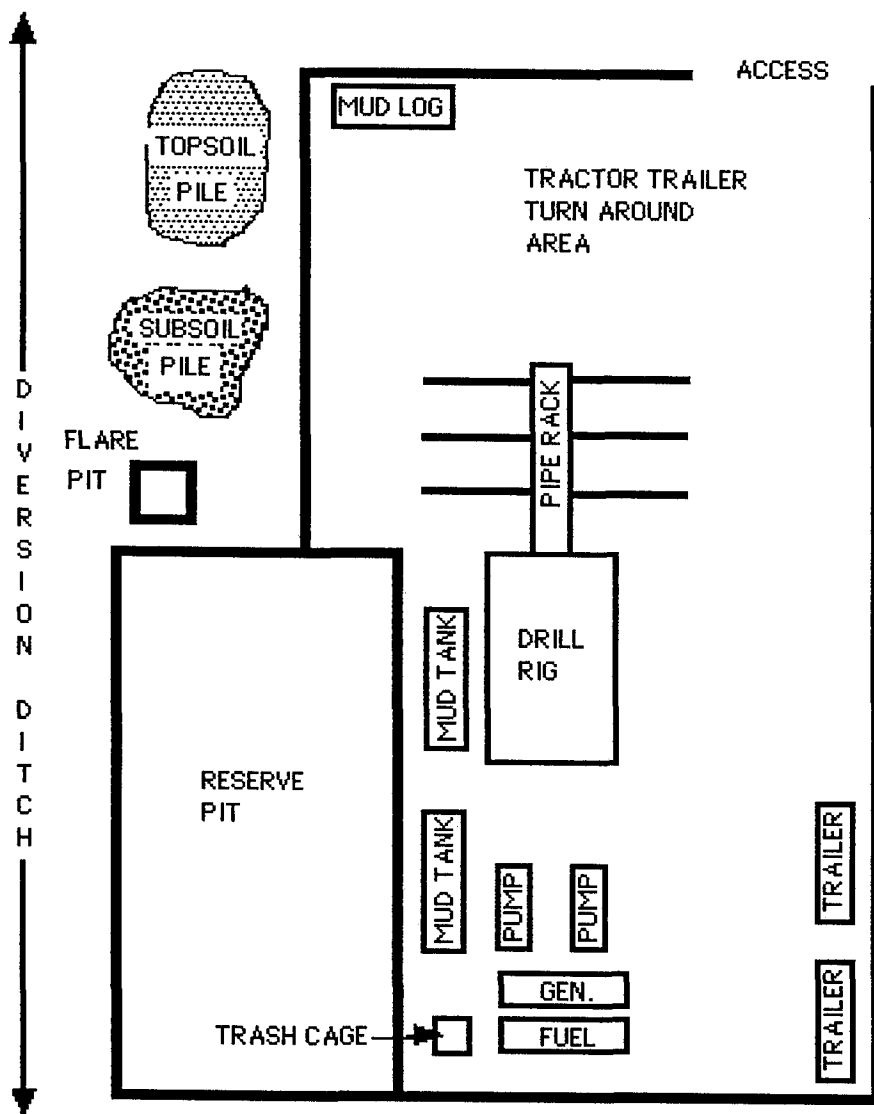




ST Oil Company  
Marie Ogden State #1  
1910' FNL & 1850' FWL  
Sec. 22, T. 31 S., R. 23 E.  
San Juan County, Utah

PAGE 14

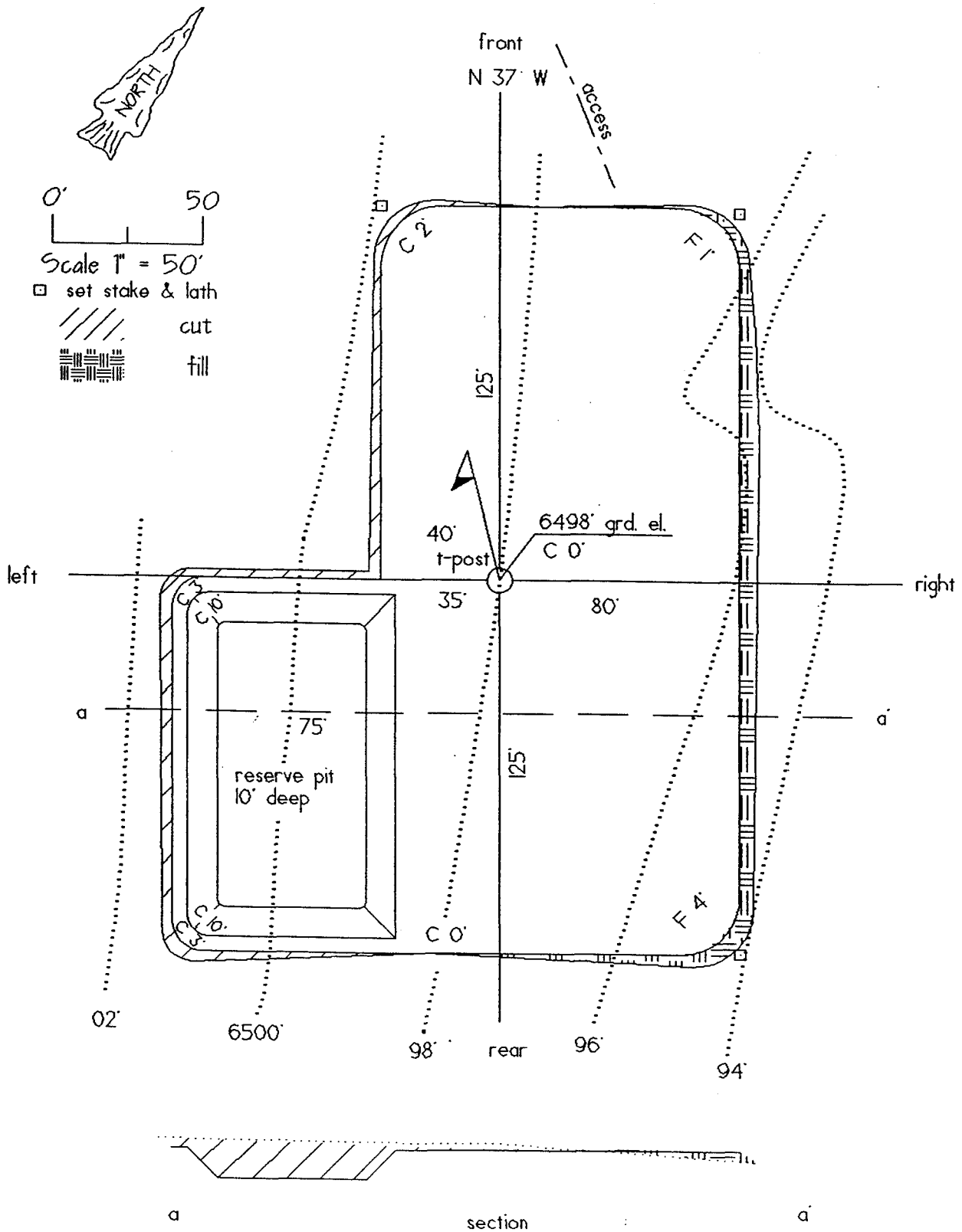
CONFIDENTIAL - TIGHT HOLE



NORTH

1" = 50'

Marie Ogden State # 1  
well pad & section



004

WORKSHEET  
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 07/22/2002

API NO. ASSIGNED: 43-037-31825

WELL NAME: MARIE OGDEN STATE 1

OPERATOR: ST OIL COMPANY ( N2190 )

CONTACT: BRIAN WOOD/AGENT

PHONE NUMBER: 303-296-1908

## PROPOSED LOCATION:

SENW 22 310S 230E

SURFACE: 1910 FNL 1850 FWL

BOTTOM: 1910 FNL 1850 FWL

SAN JUAN

WILDCAT ( 1 )

LEASE TYPE: 3 - State

LEASE NUMBER: ML-47152 <sup>OK</sup>

SURFACE OWNER: 3 - State

PROPOSED FORMATION: DSCR

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering	DRD	10/8/02
Geology		
Surface		

LATITUDE: 38.07790

LONGITUDE: 109.38622

## RECEIVED AND/OR REVIEWED:

☒ Plat  
☒ Bond: Fed[] Ind[] Sta[3] Fee[]  
(No. N25450192 <sup>OK</sup>)  
☒ Potash (Y/N)  
☒ Oil Shale 190-5 (B) or 190-3 or 190-13  
☒ Water Permit  
(No. 09-1038)  
☒ RDCC Review (Y/N)  
(Date: 08/10/2002)  
☒ Fee Surf Agreement (Y/N)

## LOCATION AND SITING:

     R649-2-3.  
Unit                                   
☒ R649-3-2. General  
Siting: 460 From Qtr/Qtr & 920' Between Wells  
     R649-3-3. Exception  
     Drilling Unit  
Board Cause No:                                   
Eff Date:                                   
Siting:                                   
     R649-3-11. Directional Drill

## COMMENTS:

Need presite (8-7-02)  
10/24 Ed Benner Said St. Oil Co has 100% of the lease

## STIPULATIONS:

1- Spacing Slip  
2- STATEMENT OF BASIS

T31S R23E

# SIXSHOOTER UNIT

Marie Odsen MAJOR MARTIN FED 1

REMINGTON 21-1H

CHURCH ROCK UNIT 1

OPERATOR NAME: ST OIL COMPANY (N2190)

SEC. 22 T31S R23E

FIELD: WILDCAT (001)

COUNTY: SAN JUAN SPACING: GEN /R649-3-2



Utah Oil Gas and Mining



Prepared By: D. Mason  
Date: 25-July-2002

## Field Status

- ABANDONED
- ACTIVE
- COMBINED
- INACTIVE
- PROPOSED
- STORAGE
- TERMINATED
- Township.shp
- Sections

## Well Status

- / Gas Injection
- Gas Storage
- Location Abandoned
- ⊙ Location
- Plugged
- Producing Gas
- Producing Oil
- Shut-In Gas
- Shut-In Oil
- x Temporarily Abandoned
- Test Well
- ▲ Water Injection
- Water Supply
- ◆ Water Disposal

## Unit Status

- EXPLORATORY
- GAS STORAGE
- NF PP OIL
- NF SECONDARY
- PENDING
- PI OIL
- PP GAS
- PP GEOTHERML
- PP OIL
- SECONDARY
- TERMINATED

**Fax Transmittal Cover**

From:

*Kitty Threl***Permits West, Inc.****phone: (505)-466-8120****fax: (505)-466-9682**

To:

*Diana*

Date:

*7/26/02*

Office:

*801/538-5312*

Fax No.

*801/359-3940*

No. pages to follow

*1***Comments:**

*Note well name on APP  
is Marie Ogden State #1  
(not Zverude 12-36-74).  
Sorry for the confusion.*

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 3

AMENDED REPORT ☒  
(highlight changes)

001

APPLICATION FOR PERMIT TO DRILL

1A. TYPE OF WORK: DRILL <input checked="" type="checkbox"/> REENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-47152
8. TYPE OF WELL: OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input checked="" type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
2. NAME OF OPERATOR: ST OIL COMPANY 1801 BROADWAY, SUITE 600		7. UNIT or CA AGREEMENT NAME: N/A
3. ADDRESS OF OPERATOR: CITY DENVER STATE CO ZIP 80202		8. WELL NAME and NUMBER: MARIE OGDEN STATE #1
PHONE NUMBER: 303 296-1908		9. FIELD AND POOL, OR WILDCAT: WILDCAT
4. LOCATION OF WELL (FOOTAGES) AT SURFACE: 1910 FNL & 1850 FWL AT PROPOSED PRODUCING ZONE: SAME		10. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SENEW 22 31s 23e SL
13. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE: 15 AIR MILES NNW OF MONTICELLO		11. COUNTY: SAN JUAN
		12. STATE: UTAH
14. DISTANCE TO NEAREST PROPERTY OR LEASE LINE (FEET) 590'	15. NUMBER OF ACRES IN LEASE: 1,440	16. NUMBER OF ACRES ASSIGNED TO THIS WELL: 40
17. DISTANCE TO NEAREST WELL (DRILLING, COMPLETED, OR APPLIED FOR) ON THIS LEASE (FEET) N/A'	18. PROPOSED DEPTH: 5,428'	19. BOND DESCRIPTION: \$20,000
20. ELEVATIONS (SHOW WHETHER DF, RT, GR, ETC.): 6,498' GR	21. APPROXIMATE DATE WORK WILL START: AUGUST 15, 2002	22. ESTIMATED DURATION: 2 WEEKS

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	CASING SIZE, GRADE, AND WEIGHT PER FOOT	SETTING DEPTH	CEMENT TYPE, QUANTITY, YIELD, AND SLURRY WEIGHT
12-1/4	9-5/8 J/K-55 36#	1,350'	LITE & STAND. 750 SX VARY 1.19 VARY 15.6
7-7/8	5-1/2 K-55 15.5#	5,428'	CLASS G LITE 330200 SX 1.56 1.95 13 12.4
			Class G 270 SX 1.19 15.6

24.

ATTACHMENTS

VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES:

- ☒ WELL PLAT OR MAP PREPARED BY LICENSED SURVEYOR OR ENGINEER  
☒ EVIDENCE OF DIVISION OF WATER RIGHTS APPROVAL FOR USE OF WATER

- ☒ COMPLETE DRILLING PLAN  
☐ FORM 5, IF OPERATOR IS PERSON OR COMPANY OTHER THAN THE LEASE OWNER

AMENDED

NAME (PLEASE PRINT) BRIAN WOOD (505) 466-8120 TITLE CONSULTANT  
SIGNATURE Brian Wood DATE 7-20-02

(This space for State use only)

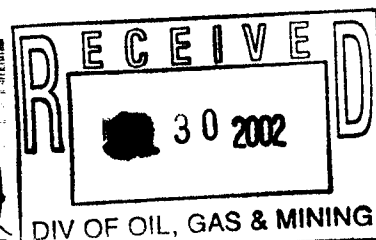
API NUMBER ASSIGNED: 43-037-31825

(5/2000)

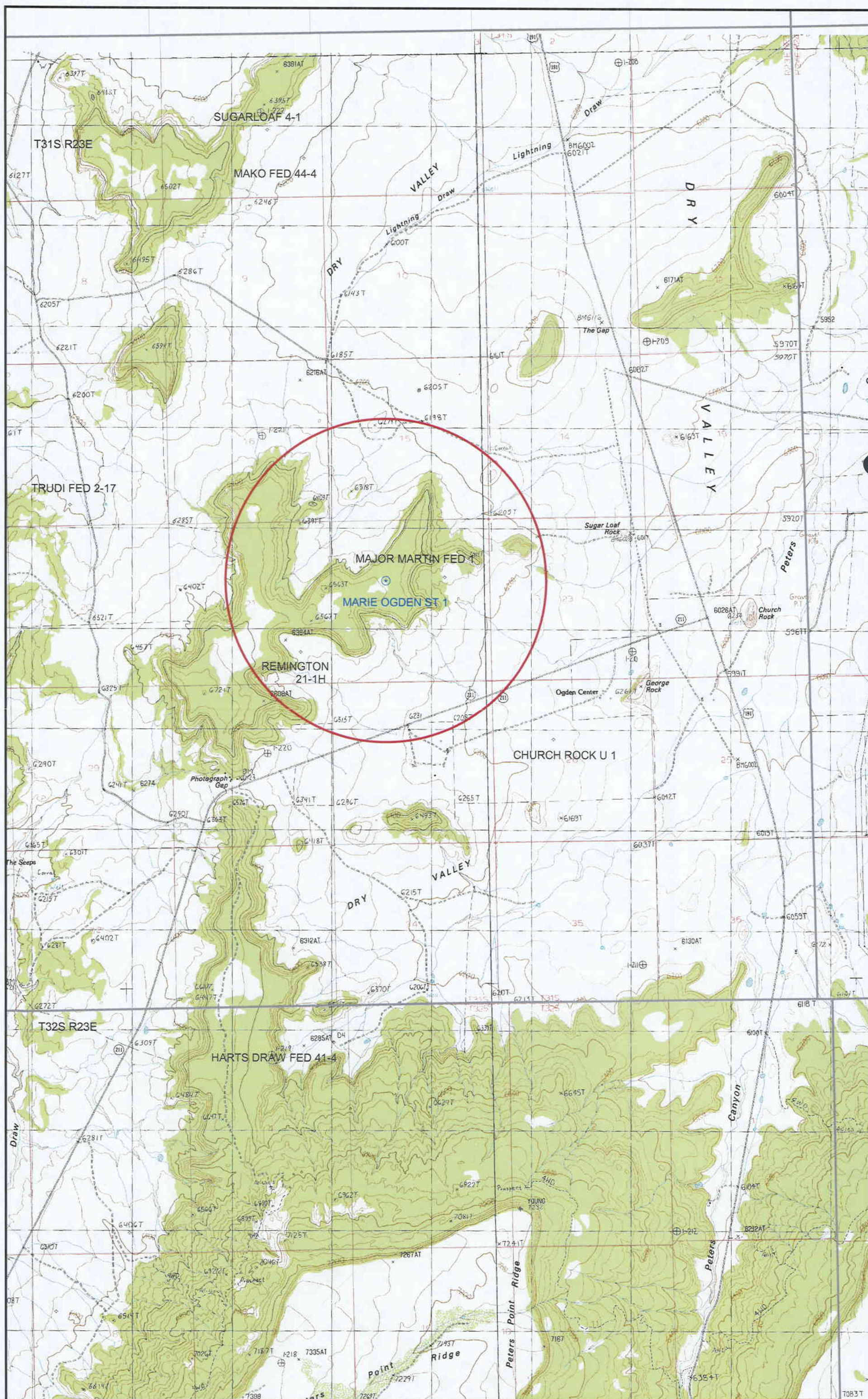
Approved by the  
Utah Division of  
Oil, Gas and Mining

Date: 10-28-02

By: [Signature]

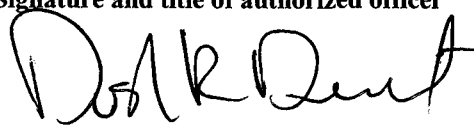








**STATE ACTIONS**  
**State Clearinghouse Coordinator**  
**116 State Capitol, SLC, UT 84114**  
**538-1535**

<b>1. Administering State Agency</b> Oil, Gas and Mining 1594 West North Temple, Suite 1210 Salt Lake City, UT 84114-5801	<b>2. State Application Identifier Number: (assigned by State Clearinghouse)</b>  <b>3. Approximate date project will start:</b> Upon Approval or August 15, 2002
<b>4. Areawide clearinghouse(s) receiving state action: (to be sent out by agency in block 1)</b>  Southeastern Utah Association of Governments	
<b>5. Type of action:</b> // Lease    /X/ Permit    // License    // Land Acquisition  // Land Sale    // Land Exchange    // Other _____	
<b>6. Title of proposed action:</b>  Application for Permit to Drill	
<b>7. Description:</b>  ST Oil Company proposes to drill the Marie Ogden State #1 well (wildcat) on a State lease ML-47152, San Juan County, Utah. This action is being presented to the RDCC for consideration of resource issues affecting state interests. The Division of Oil, Gas and Mining is the primary administrative agency in this action and must issue approval before operations commence.	
<b>8. Land affected (site location map required) (indicate county)</b>  SE/4, NW/4, Section 22, Township 31 South, Range 23 East, San Juan County, Utah	
<b>9. Has the local government(s) been contacted?</b>  No	
<b>10. Possible significant impacts likely to occur:</b>  Degree of impact is based on the discovery of oil or gas in commercial quantities.	
<b>11. Name and phone of district representative from your agency near project site, if applicable:</b>  	
<b>12. For further information, contact:</b>   Diana Mason Phone: (801) 538-5312	<b>13. Signature and title of authorized officer</b>  (for) John R. Baza, Associate Director Date: July 25, 2002





State Online Services

Agency List

Search Utah.gov go

# UTAH DIVISION OF WATER RIGHTS

## WRPRINT Water Right Information Listing

Version: 2002.07.10.00 Rundate: 07/31/2002 12:38 PM

### Water Right 05-2039

View Documents

View Use Data

Printable (PDF) Version

(WARNING: Water Rights makes NO claims as to the accuracy of this data.) RUN DATE: 07  
 WRNUM: 05-2039 APPLICATION/CLAIM NO.: A59321 CERT. NO.:

OWNERSHIP\*\*\*\*\*

NAME: Washburn Enterprises OWNER MISC: c/o Clem Washburn  
 ADDR: P.O. Box 476  
 CITY: Monticello STATE: UT ZIP: 84535 INTEREST: 100%  
 LAND OWNED BY APPLICANT? Yes

DATES, ETC.\*\*\*\*\*

FILING: 09/08/1983	RECVD BY: [MP ]	PRIORITY: 09/08/1983	ADV DESIG: 09/09/1983	BY: [MP ]	PAF
PUB BEGAN: 12/08/1983	PUB ENDED: / /	PROTST END: 01/21/1984	PROTESTED: [ ]	PROOF/PUB: / /	BY:
APPR/REJ: 04/20/1984	PROOF DUE: 02/28/1988	EXTENSION: / /	ELEC/PROOF: [Election]	ELEC/PROOF: 01/13/1988	PRC
CERT/WUC: / /	LAP, ETC: / /	PROV LETR: / /	RENOVATE: / /		

PD Book No. Type of Right: APPL Status: WUC Source of Info: WUC Map: Date Verified: 03/15/1988

LOCATION OF WATER RIGHT\*\*\*\*\*

FLOW: 0.015 cfs SOURCE: Underground Water Well  
 COUNTY: San Juan COMMON DESCRIPTION: 2 Miles W of Church Rock  
 POINT OF DIVERSION -- UNDERGROUND:  
 (1) N 300 ft E 1800 ft from W4 cor, Sec 15, T 31S, R 23E, SLBM DIAM: 9 ins. DEPTH: 510 to ft. YEAR DRILLE  
 Comment:

PLACE OF USE OF WATER RIGHT\*\*\*\*\*

USES OF WATER RIGHT\*\*\*\*\*

[illegible]

[Natural Resources](#) | [Contact](#) | [Disclaimer](#) | [Privacy Policy](#) | [Accessibility Policy](#)



State Online Services

Agency List

Search Utah.gov

# UTAH DIVISION OF WATER RIGHTS

## WRPRINT Water Right Information Listing

Version: 2002.07.10.00      Rundate: 07/31/2002 12:40 PM

### Water Right 05-2601

View Documents

View Use Data

Printable (PDF) Version

(WARNING: Water Rights makes NO claims as to the accuracy of this data.) RUN DATE: 07

WRNUM: 05-2601

APPLICATION/CLAIM NO.: A70199

CERT. NO.:

OWNERSHIP\*\*\*\*\*

NAME: Bureau of Land Management

OWNER MISC:

ADDR: P.O. Box 7

CITY: Monticello

STATE: UT    ZIP: 84535

INTEREST: 100%

LAND OWNED BY APPLICANT? Yes

DATES, ETC.\*\*\*\*\*

FILING: 07/01/1996	RECVD BY: [MP ]	PRIORITY: 07/09/1996	ADV DESIG: 07/11/1996	BY: [MP ]	PAF
PUB BEGAN: 08/01/1996	PUB ENDED: 08/08/1996	PROTST END: 08/28/1996	PROTESTED: [No ]	PROOF/PUB: / /	BY:
APPR/REJ: 10/25/1996	PROOF DUE: 02/28/2002	EXTENSION: / /	ELEC/PROOF: [Election]	ELEC/PROOF: 01/24/2002	PRC
CERT/WUC: / /	LAP, ETC: / /	PROV LETR: / /	RENOVATE: 01/31/2001		

PD Book No.      Type of Right: APPL    Status: APP    Source of Info: APPL    Map:      Date Verified: 07/11/1996

LOCATION OF WATER RIGHT\*\*\*\*\*

FLOW: 1.4 acre-feet

SOURCE: Underground Water Well - Existing

COUNTY: San Juan      COMMON DESCRIPTION: 1.5 mi. N. of Photograph Gap

POINT OF DIVERSION -- UNDERGROUND:

(1) N 950 ft W 1150 ft from SE cor, Sec 21, T 31S, R 23E, SLBM DIAM: 8 ins. DEPTH: 660 to      ft. YEAR DRILLE

Comment:

PLACE OF USE OF WATER RIGHT\*\*\*\*\*

USES OF WATER RIGHT\*\*\*\*\*

OTHER COMMENTS\*\*\*\*\*

[illegible]

<http://waterrights.utah.gov/cgi-bin/wrprint.exe?05-2601>

**ON-SITE PREDRILL EVALUATION**  
**Division of Oil, Gas and Mining**

OPERATOR: ST Oil Company (N2190)  
WELL NAME & NUMBER: Marie Ogden State 1  
API NUMBER: 43-037-31825  
LEASE: ML-47152 FIELD/UNIT: WILDCAT (001)  
LOCATION: 1/4, 1/4 SENW Sec: 22 TWP: 31S RNG: 23E 1910 FNL 1850 FWL  
LEGAL WELL SITING: 460' FROM 1/4, 1/4 LINE; 920' FROM ANOTHER WELL.  
GPS COORD (UTM): X=641569 E; Y=4215500 N SURFACE OWNER: SITLA

**PARTICIPANTS**

Lisha Cordova (DOGM), Dan Jarvis (DOGM), Brian Wood (Permits West), Chris Colt (DWR), Ed Bonner was invited but did not attend (SITLA), Mike Narramore (Reams Const.), Jerry Holliday (Holiday Const.), Blain Nebeker (Crowley Const.), and Norman Utley (Utley Const.)

**REGIONAL/LOCAL SETTING & TOPOGRAPHY**

The location is approximately 35 miles south of Moab off US 191 & JCT 211 and will be located in canyon land topography on top of a rocky mesa overlooking flatlands. The Blue Mountains can be seen in the distance southwest of location. A rough dirt road on a slight grade leads about 1/3 of the distance to location, however it will need to be upgraded and new road construction will be necessary to complete the access road. The road will begin with a gradual incline leading to a steep section of slick rock where a switchback will be required to lesson the grade. Rock blasting will be required at midpoint and the upper portion of the road will need to be graded to maintain a grade less than 10%. The well site and reserve pit will be on a relatively flat surface slightly dipping toward the south. An archeological site to the northeast of location has been marked off with white and blue flags.

**SURFACE USE PLAN**

CURRENT SURFACE USE: Substantial wildlife habitat including deer, rabbits, coyote, rodents, birds, snakes, etc.

PROPOSED SURFACE DISTURBANCE: Pad 250X115 with an attached 125X75 reserve pit.

LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: 2 plugged and abandoned wells, and 2 water wells.

LOCATION OF PRODUCTION FACILITIES AND PIPELINES: Well head, pump, separator and tank battery will be installed. An impermeable dike will surround tanks with sufficient capacity to hold 150% of the volume of the largest tank within the dike. No pipelines indicated in permit.

SOURCE OF CONSTRUCTION MATERIAL: From location, dirt contractor, and local source(s).

ANCILLARY FACILITIES: None

**WASTE MANAGEMENT PLAN:**

Portable chemical toilets which will be emptied into the municipal waste treatment system; garbage cans on location will be emptied into

centralized dumpsters which will be emptied into an approved landfill. No crude oil is expected. Drilling fluid, completion/frac fluid and cuttings will be buried in the pit after evaporation and slashing the pit liner. Used oil from drilling operations and support will be hauled to a used oil recycling facility and disposed of. Produced water will be disposed of at an approved facility.

#### **ENVIRONMENTAL PARAMETERS**

AFFECTED FLOODPLAINS AND/OR WETLANDS: None

FLORA/FAUNA: Pinion, Sage Brush, Mormon Tea, Indian Rice Grass, Cactus, and native grasses.

SOIL TYPE AND CHARACTERISTICS: Reddish brown loose sandy dirt with clay.

SURFACE FORMATION & CHARACTERISTICS: Entrada/Carmel sandstone and quaternary alluvium.

EROSION/SEDIMENTATION/STABILITY: Stable

PALEONTOLOGICAL POTENTIAL: None observed.

#### **RESERVE PIT**

CHARACTERISTICS: Mostly flat surface with a slight grade on south end. Depth of soil and hard rock underlying pit is unknown at present. Will want to make sure liner is installed properly to avoid liner puncture(s). If pit is built in rock, geotextile or some other approved material will be required to underlay the liner.

LINER REQUIREMENTS (Site Ranking Form attached): 12 mils or higher.

#### **SURFACE RESTORATION/RECLAMATION PLAN**

SURFACE AGREEMENT: As per agreement with SITLA (surface owner).

CULTURAL RESOURCES/ARCHAEOLOGY: None at location. Surveyed by Casa Arch. Services Associates. An arch site was located northeast of location. It has been marked with white and blue flags. Operator is aware of site and will make sure that all company representatives and contractors are made aware of it and do not disturb. The access road has been routed to the south to avoid disturbance of the site.

#### **OTHER OBSERVATIONS/COMMENTS**

Chris Colt (DWR) requested a wildlife drilling window between August 15-February 1. ST Oil Companys drilling plans correspond with DWRs' request and operator representative stated they will have no problem granting request. An onsite with the BLM for Right of Way (ROW) approval had already been performed, and it was stated that a ROW had been issued by the BLM. In addition, a one foot berm will surround the entire location, as requested by the Division.

**ATTACHMENTS**

Photos of this location were taken at time of onsite however the oil & gas digital camera, including photos of this site, was reported stolen from the Division on August 9, 2002. Photos will be re-taken at time of pit liner inspection and will be placed in file.

Lisha Cordova / Dan Jarvis  
DOGM REPRESENTATIVE(S)

August 7, 2002  
DATE/TIME

**Evaluation Ranking Criteria and Ranking Score  
For Reserve and Onsite Pit Liner Requirements**

<u>Site-Specific Factors</u>	<u>Ranking</u>	<u>Site Ranking</u>
Distance to Groundwater (feet)		
>200	0	
100 to 200	5	
75 to 100	10	
25 to 75	15	
<25 or recharge area	20	10
Distance to Surf. Water (feet)		
>1000	0	
300 to 1000	2	
200 to 300	10	
100 to 200	15	
< 100	20	0
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280	5	
500 to 1320	10	
<500	20	0
Distance to Other Wells (feet)		
>1320	0	
300 to 1320	10	
<300	20	0
Native Soil Type		
Low permeability	0	
Mod. permeability	10	
High permeability	20	20
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000	10	
TDS >10000 or Oil Base Mud Fluid	15	
containing significant levels of hazardous constituents	20	5
Drill Cuttings		
Normal Rock	0	
Salt or detrimental	10	0
Annual Precipitation (inches)		
<10	0	
10 to 20	5	
>20	10	0
Affected Populations		
<10	0	
10 to 30	6	
30 to 50	8	
>50	10	0
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown	10	
Present	15	0

**Final Score**      35      (Level 1 Sensitivity)

Sensitivity Level I = 20 or more; total containment is required.

Sensitivity Level II = 15-19; lining is discretionary.

Sensitivity Level III = below 15; no specific lining is required.



**DIVISION OF OIL, GAS AND MINING  
APPLICATION FOR PERMIT TO DRILL  
STATEMENT OF BASIS**

**OPERATOR:** ST Oil Company (N2190)  
**WELL NAME & NUMBER:** Marie Ogden State 1  
**API NUMBER:** 43-037-31825  
**LEASE:** ML-47152 **FIELD/UNIT:** WILDCAT (001) **LOCATION:** 1/4,1/4 SENW  
**Sec:**22 **TWP:** 31S **RNG:** 23E **1910 FNL** 1850 **FWL**

**Geology/Ground Water:**

The only locally recognized aquifers, which are likely to be encountered in this well, are the P and N aquifers. The well will spud into Entrada Sandstone. Small seeps and, in the subsurface, perched aquifers may be encountered in the Entrada Sandstone and the porous and permeable strata of the Glen Canyon Group. The nearest local seeps appear to issue from the Navajo Sandstone of the aforementioned Group. These would be the most likely host rocks of a water resource from the N aquifer. Another possible source of water encountered during drilling may be several permeable strata in the Cutler Group and which are collectively named the P aquifer. There are two water supply wells identified within a mile of the location and the depths of these indicate that they are probably producing from the N aquifer. It is proposed that surface casing be set in the top of the Chinle Formation and this should suffice to protect the shallow and higher quality water resource found in the N aquifer. As a consequence of the depth at which they are found, the waters of the P aquifer in this area are most likely moderately saline and therefore not of high quality. The proposed casing and cement program should suffice to protect the ground water resource.

**Reviewer:** Christopher J. Kierst **Date:** August 20, 2002

**Surface:**

Operator representatives and DWR were present at onsite conducted on August 7, 2002. SITLA was invited but did not attend. DWR requested a wildlife drilling window from August 15 thru February 1, which operator agreed to. An onsite with the BLM had been performed prior to the Division onsite for BLM Right of Way (ROW) approval and operator was granted ROW approval. An arch site which has been marked off with white and blue flags offsets the well location to the northeast. Operator will make sure that all company representatives and contractors are made aware of the site and do not disturb. All unused graded material from site will be pushed toward the northern end of location, away from arch site, to keep the scenic mesa front undisturbed. The reserve pit liner will need to be properly installed and maintained in the reserve pit with a synthetic liner with a minimum thickness of 12 mils, and if the pit is built in rock, geotextile or some other Division approved material will be required to underlay the liner. The Division would like to be notified prior to lining the reserve pit to allow for Division inspection. Operator will build a one foot berm around the entire location, as requested by the Division.

**Reviewer:** Lisha Cordova / Dan Jarvis **Date:** August 12, 2002

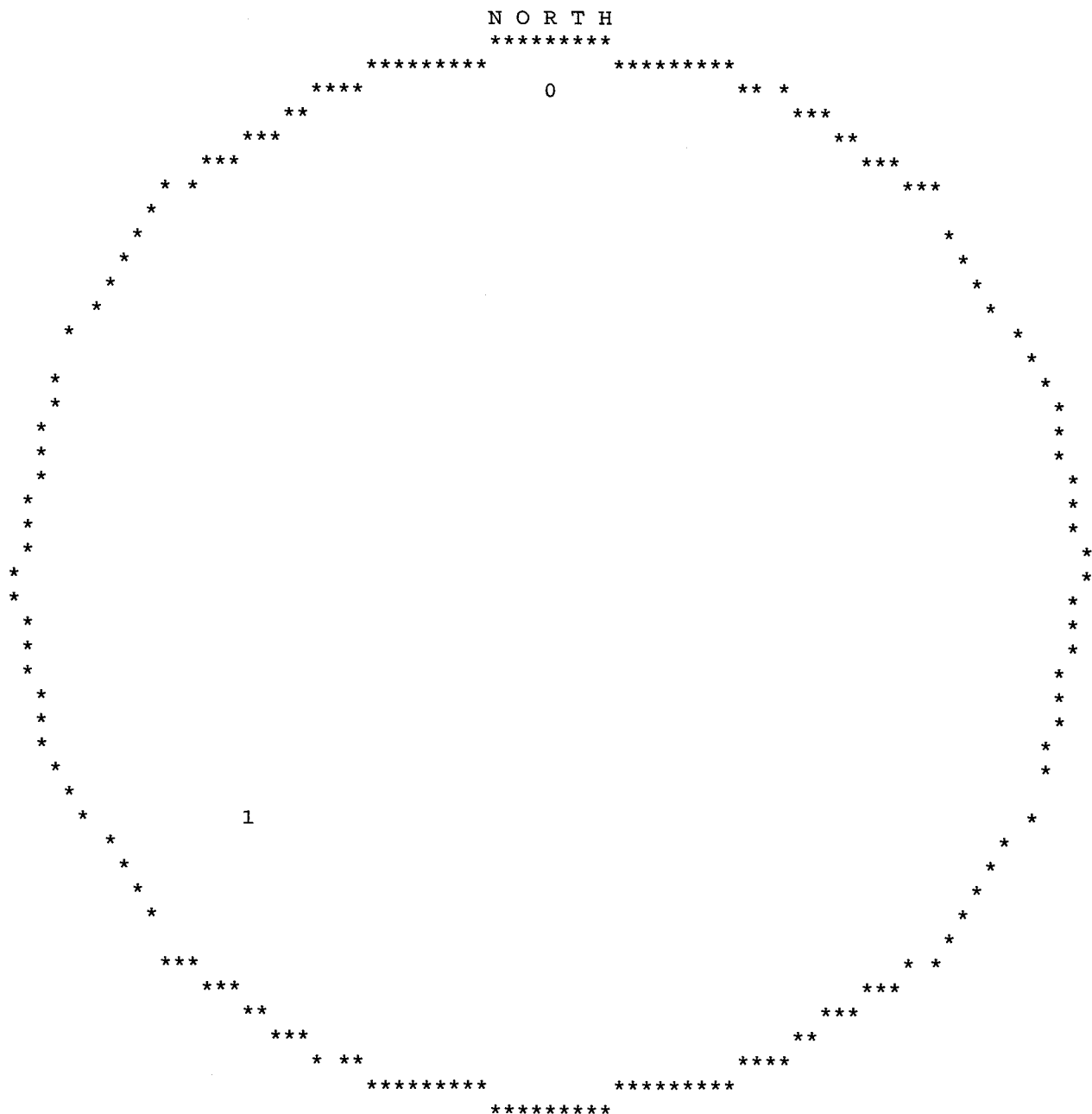
**Conditions of Approval/Application for Permit to Drill:**

1. A synthetic liner with a minimum thickness of 12 mils shall be properly installed and maintained in the reserve pit.
2. If the reserve pit is built in rock, geotextile or some other Division approved material will be required to underlay the liner.
3. The Division shall be notified prior to lining the reserve pit to allow for Division inspection.
4. A one-foot berm will be built around the entire location.

UTAH DIVISION OF WATER RIGHTS  
WATER RIGHT POINT OF DIVERSION PLOT CREATED WED, JUL  
PLOT SHOWS LOCATION OF 2 POINTS OF DI

PLOT OF AN AREA WITH A RADIUS OF 5280 FEET  
S 1910 FEET, E 1850 FEET OF THE NW CORNER,  
SECTION 22 TOWNSHIP 31S RANGE 23E SL BASE

PLOT SCALE IS APPROXIMATELY 1 INCH = 2000 F



---

UTAH DIVISION OF WATER RIGHTS  
NWPLAT      POINT OF DIVERSION LOCATION PR

---

---

MAP CHAR	WATER RIGHT	QUANTITY CFS	AND/OR AC-FT	SOURCE DESCRIPTION DIAMETER	or WELL INFO DEPTH	YEAR LOG	POI NORTH
0	05 2039	.0150	.00	9	510	1986 Y	N 300
		WATER USE(S): STOCKWATERING Washburn Enterprises		P.O. Box 476			
1	05 2601	.0000	1.40	8	660	N	N 950
		WATER USE(S): STOCKWATERING Bureau of Land Management		P.O. Box 7			

---

UTAH DEPARTMENT OF TRANSPORTATION  
**PERMIT**

**ORIGINAL**

T-226(6/97)  
HIGHWAY RIGHT OF WAY  
ENCROACHMENT  
Price District

Date: **1329-44**  
**07/01/2002**  
Work Order No:

Application of: PERMITS WEST, INC.

By: BRIAN WOOD

Phone: (505) 466-8120

Address: 37 VERANO LOOP SANTA FE, NM 87508

Fax:

is hereby granted subject to: UDOT's Regulations For the Accommodation of Utilities on Federal Aid and Non Federal-Aid Highway Right of Way, Regulations for the Control and Protection of State Highway Rights of Way, Standard Specifications for Road and Bridge Construction, Specifications for Excavation of State Highway, State Occupational Safety and Health Laws, Manual on Uniform Traffic Control Devices, Instructions to Flaggers, the approved plans, and any special limitations set forth herein, permission for the purpose of UPGRADE (GRAVEL) EXISTING DRIVEWAY FOR ACCESS TO PROPOSED OIL WELL ON STATE LAND. within the right of way limits of Highway No. 211 Milepost No. 18.5, in SAN JUAN County, in the following locations: 11 MILES NORTH-NORTHWEST OF MONTICELLO. SR-211, MILEMARKER 18.5

Receipt of \$20 permit fee is hereby acknowledged. The work permitted herewith shall commence 08/01/2002 and shall be diligently prosecuted to completion. The work shall be completed and all disturbed surfaces or objects restored on or before 07/31/2003. In the event work is commenced under this permit and the permittee fails or refuses to complete the work, the Utah Department of Transportation may, at its election, fill in or otherwise correct any existing deficiencies at the expense of and subject to immediate payment by the permittee.

Permittee shall execute a bond in the minimum amount of , as determined by the Regional Director/District Engineering, to insure faithful performance of the permittee's obligation. The bond shall remain in force for three years after completion of work.

Before work permitted herewith is commenced, the permittee shall notify VICTOR SCHAFER 4355872620.

Commencement of said work is understood to indicate that the permittee will comply with all instructions and regulations of the Utah Department of Transportation (as listed) with respect to performance of said work, and that she/he will properly control and warn the public of said work to prevent accident and shall indemnify and hold harmless the Utah Department of Transportation from all damages arising out of any and all operations performed under this Permit.

Permittee shall not perform any work on State Highway right of way beyond those areas of operation stipulated on this permit.

If permittee fails to comply with Utah Department of Transportation regulations, specifications, or instructions pertinent to this permit, the Region Director/District Engineer or his duly authorized representative, may by verbal order, suspend the work until the violation is corrected. If permittee fails or refuses to comply promptly, the Region Director/District Engineer or his authorized representative may issue a written order stopping all or any part of the work. When satisfactory corrective action is taken, an order permitting resumption of work may be issued.

**Special Limitations:**

- This agreement and/or permit is UDOT approval only. You are responsible to obtain clearances from railroads, private property owners and local jurisdictions that you are working within.
  - Licensee must sign work in accordance with THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, Section 6, and all signs must be equipped with 3 orange flags. Flaggers required if moving traffic out of traffic lane.
  - Orange shirts or vests required of all workers within the Right of Way
  - Licensee must check for other utilities buried in this area prior to excavation (Blue Stakes does not locate signal wiring).
  - Part time inspector is required at permittee's expense, with 48 hours notice. By accepting this permit, I agree to pay for inspectors fee.
  - Contractor responsible for repairing and/or restoring any portion of the roadway damaged during construction.
- MUST HAVE STATE LANDS APPROVAL. NO MORE THAN 2% SLOPE FROM EDGE OF PAVEMENT FOR 50 FT.

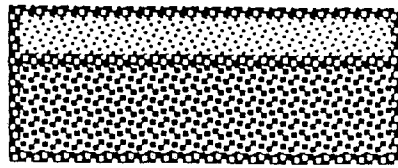
**BRIAN WOOD, See Application**

(Signature of Permittee)

Approved By:

Maintenance Station No. 4423 VICTOR SCHAFER (435)587-2620

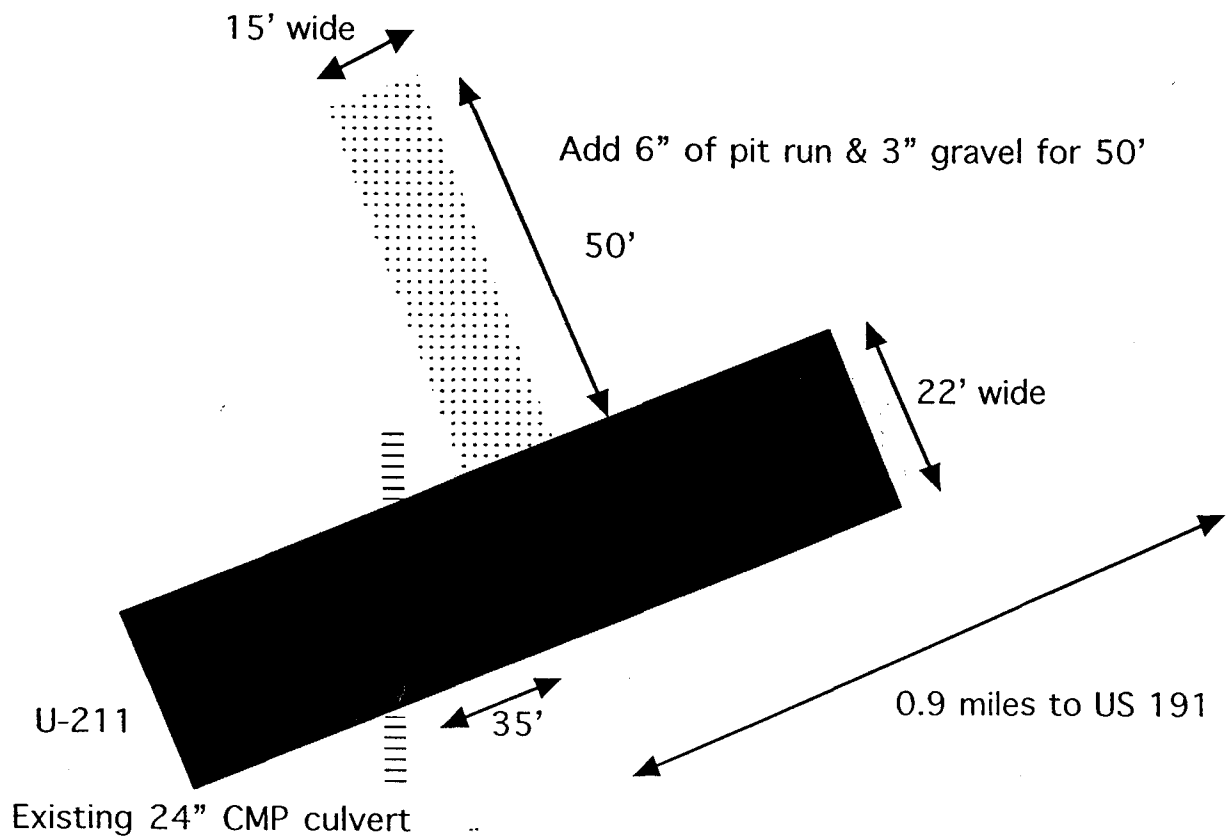
(Region Director/District Engineer)



3" gravel

6" pit run

PROFILE



PLAN VIEW

NORTH

ST Oil Company  
Marie Ogden State #1  
1910' FNL & 1850' FWL  
Sec. 22, T. 31 S., R. 23 E.  
San Juan County, Utah

PAGE 7

CONFIDENTIAL - TIGHT HOLE

## Surface Use Plan

### 1. DIRECTIONS (See Pages 12 & 13)

From the Monticello, go North 14 miles on US 191 to U-211  
Then turn left and go West 0.95 mi. on paved U-211 to a faint dirt road  
Then turn right and go NW 0.85 miles on a partially reclaimed dirt road  
Then turn right and go NE 250' on a jeep trail  
Then turn left and go N 500' on a less obvious jeep trail  
Then switch back 75' NE away from the jeep trail  
Then switch back 75' NW onto a rock bench  
Then follow an old seismic trail W 1,675'  
Then detour S away from the trail for 350'  
Then return to the seismic trail and continue W 300'  
Then turn left and go SW cross country 125' to the proposed well

Roads will be maintained to a standard at least equal to their present condition.

### 2. ROAD WORK

The dirt contractor will call the archaeologist (CASA @ 970-565-9229) at least 48 hours before starting construction. The archaeologist will fence an archaeology site on the north side of the pad on top of the mesa before starting construction. The archaeologist will monitor construction.

The junction of the dirt road and U-211 will be upgraded. The first 50' of dirt road will be surfaced with 6" of pit run and 3" of gravel. Depths are before compaction.

Existing water dips in the dirt road will be repaired. Dips will be skewed to

ST Oil Company  
Marie Ogden State #1  
1910' FNL & 1850' FWL  
Sec. 22, T. 31 S., R. 23 E.  
San Juan County, Utah

PAGE 8

CONFIDENTIAL - TIGHT HOLE

drain, at least half in cut, and broad enough so a tractor-trailer does not high center. A new water dip will be built just north of the junction of the old well road and jeep trail to keep run off from the P & A well from running down ST's portion of the road.

The road will initially be flat bladed with a 15' wide running surface. Maximum disturbed width will be 30'. Maximum cut or fill is 5'. Maximum grade will be 8%. No culverts, cattle guards, or turn outs are needed now. If production results, then it will be upgraded to all weather state and BLM standards.

### 3. EXISTING WELLS (See Page 13)

There are two plugged and abandoned wells and one water well within a mile radius. There are no existing oil, gas, or injection wells within a mile.

### 4. PROPOSED PRODUCTION FACILITIES

A well head, pump, separator, and tank battery will be installed. All will be painted a flat juniper green color. Tanks will be surrounded by an impermeable dike with sufficient capacity to hold 150% of the volume of the largest tank within the dike.

### 5. WATER SUPPLY

ST will use Guy Tracy's permitted existing 320' deep water well just east of the fairgrounds in SESE 30-33s-24e. (#09-1038, #09-1224.

### 6. CONSTRUCTION MATERIALS & METHODS (See Pages 14 & 15)

Dirt contractor will notify archaeologist (CASA at 970-565-9229) at least

ST Oil Company  
Marie Ogden State #1  
1910' FNL & 1850' FWL  
Sec. 22, T. 31 S., R. 23 E.  
San Juan County, Utah

PAGE 9

CONFIDENTIAL - TIGHT HOLE

48 hours before construction starts. Archaeologist will fence off archaeology site and point out road detour on mesa top.

Topsoil and brush will be stripped and stockpiled west of the pad. A ditch will be cut along the west side of the pad.

If needed, the reserve pit will be lined a minimum 12 mil liner or with at least 24 tons of commercial bentonite worked into 3:1 sides. No liquid hydrocarbons will be discharged to the pit, pad, or road. Should hydrocarbons escape, they will be cleaned up and removed within 48 hours.

The pit will be fenced 48" high on 3 sides with 32" high woven wire topped with 2 smooth wire stands 4" and 16" above the woven wire. Steel posts will be set  $\approx 16.5'$  apart. Corner posts will be  $\geq 6"$  O. D. wood and anchored with a dead man. The 4th side will be fenced the same when drilling stops. The fence will be kept in good repair while the pit dries.

#### 7. WASTE DISPOSAL

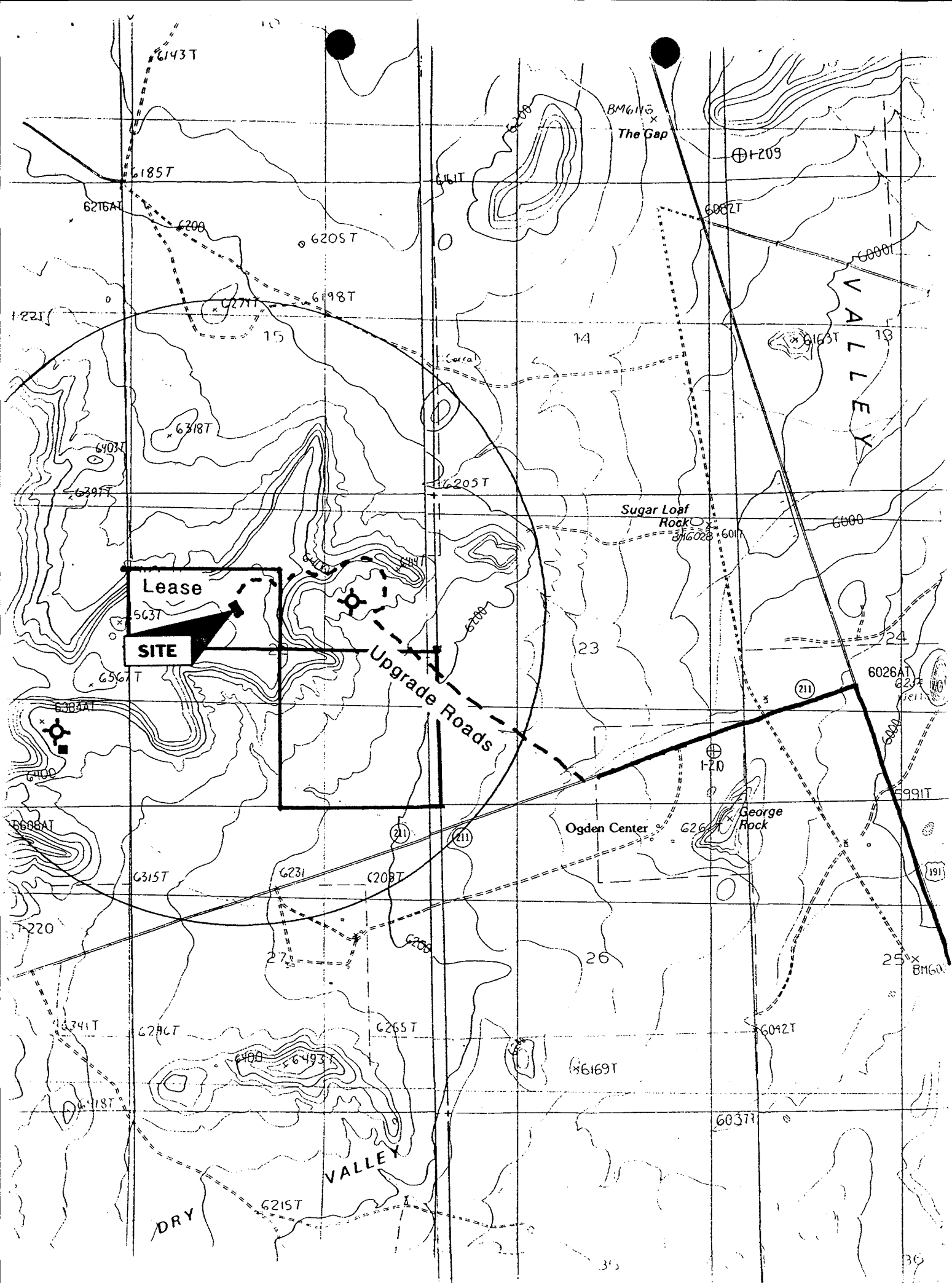
Once dry, contents of the reserve pit will be buried in place.

Human waste will be disposed of in chemical toilets, which will be hauled to a state approved dump station. All trash will be placed in a portable trash cage. It will be hauled to the county landfill. There will be no trash burial or burning.

#### 8. ANCILLARY FACILITIES

There will be no air strips or camps. Camper trailers may be on location for the company man, tool pusher, and mud loggers.

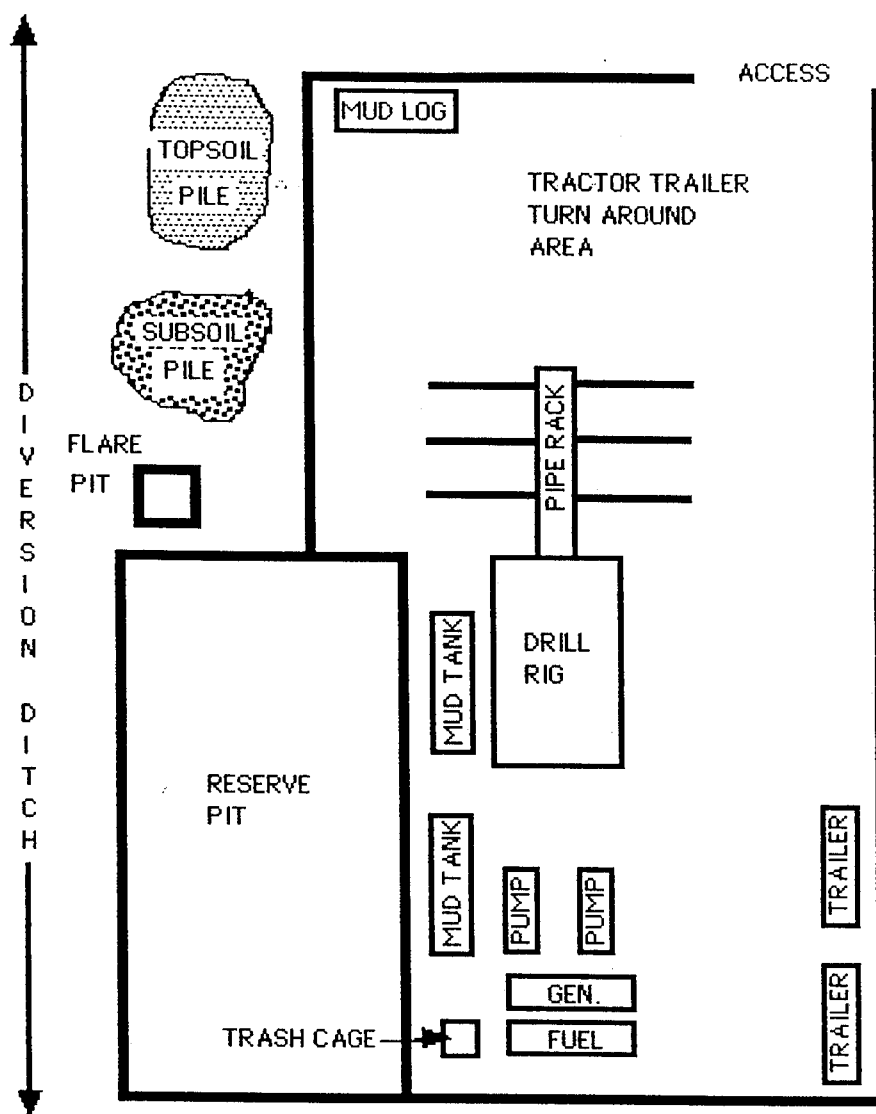




ST Oil Company  
Marie Ogden State #1  
1910' FNL & 1850' FWL  
Sec. 22, T. 31 S., R. 23 E.  
San Juan County, Utah

PAGE 14

CONFIDENTIAL - TIGHT HOLE

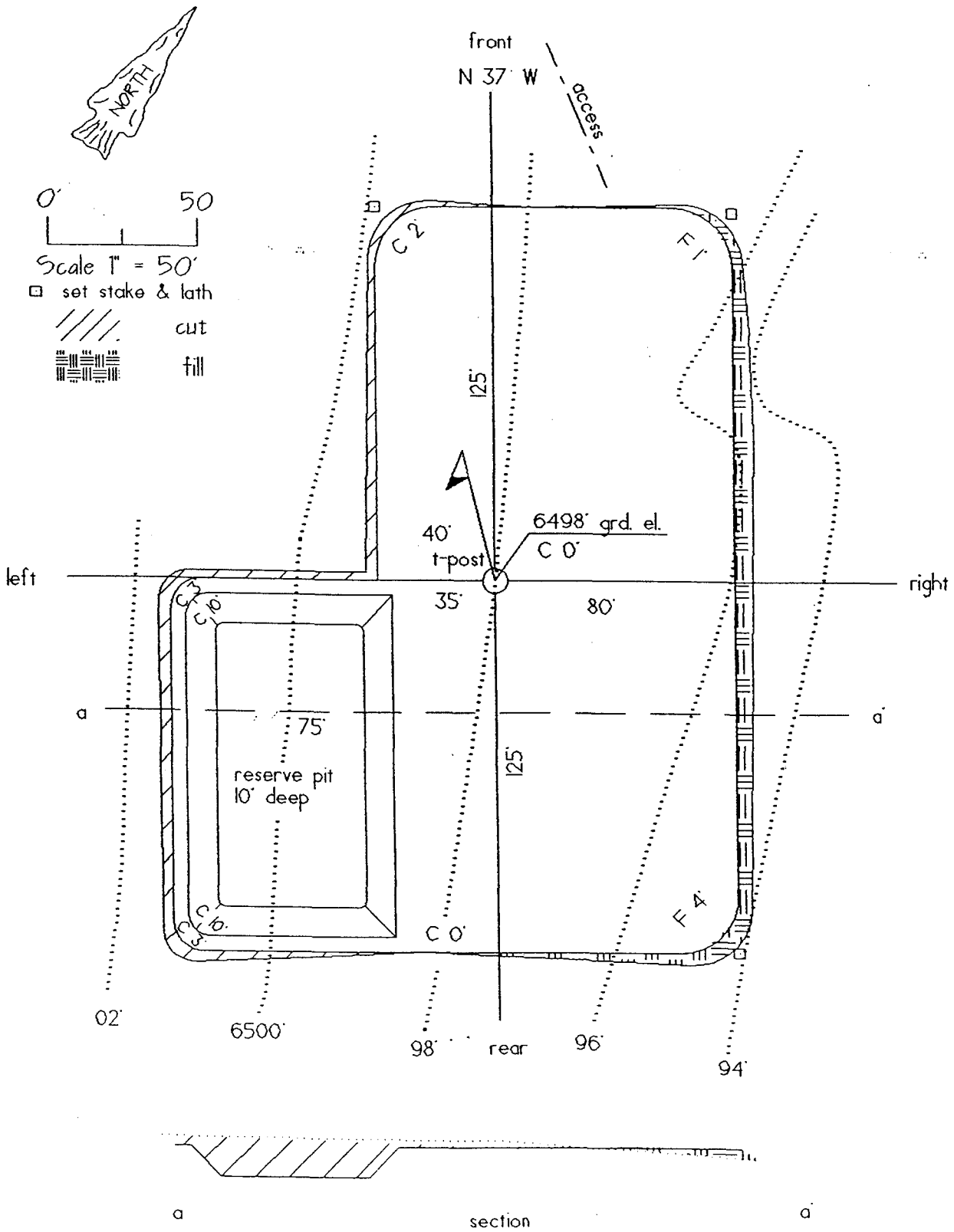


NORTH

1" = 50'

Marie Ogden State # 1

well pad & section



## Lisha Cordova - ST Oil

---

**From:** Brian Wood <brian@permitswest.com>  
**To:** DIANA MASON <DIANAMASON@utah.gov>  
**Date:** 08/26/2002 9:29 AM  
**Subject:** ST Oil  
**CC:** LISHA CORDOVA <lcordova.nrogm@state.ut.us>

---

\*\*\*\*\*  
Note from the PostMaster:  
This message was forwarded from your previous address to your current address.  
Your new internet address is LISHACORDOVA@utah.gov  
Please make a note of it, and inform those that send you mail.  
Thank you.  
This forwarding service is temporary and will stop in 20 days

\*\*\*\*\*  
ST reports they will have to resort to force pooling.  
Thus, it will be several months before they have all designation  
documents in place for your approval.

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b>		5. LEASE DESIGNATION AND SERIAL NUMBER: <b>ML-47152</b>
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.		6. IF INDIAN, ALLOTTEE OR TRIBE NAME: <b>N/A</b>
		7. UNIT or CA AGREEMENT NAME: <b>N/A</b>
1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____	8. WELL NAME and NUMBER: <b>MARIE OGDEN STATE 1</b>	
2. NAME OF OPERATOR: <b>ST OIL COMPANY</b>		9. API NUMBER: <b>43-037-31825</b>
3. ADDRESS OF OPERATOR: <b>1801 BROADWAY, #600</b> <small>CITY</small> <b>DENVER</b> <small>STATE</small> <b>CO</b> <small>ZIP</small> <b>80202</b>	PHONE NUMBER: <b>303 296-1908</b>	10. FIELD AND POOL, OR WILDCAT: <b>WILDCAT</b>
4. LOCATION OF WELL FOOTAGES AT SURFACE: <b>1910 FNL &amp; 1850 FWL</b>		COUNTY: <b>SAN JUAN</b>
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <b>SENW 22 31s 23e SL</b>		STATE: <b>UTAH</b>

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> <b>NOTICE OF INTENT</b> (Submit In Duplicate)  Approximate date work will start: _____  <input type="checkbox"/> <b>SUBSEQUENT REPORT</b> (Submit Original Form Only)  Date of work completion: _____	<input type="checkbox"/> ACIDIZE <input type="checkbox"/> ALTER CASING <input type="checkbox"/> CASING REPAIR <input type="checkbox"/> CHANGE TO PREVIOUS PLANS <input type="checkbox"/> CHANGE TUBING <input type="checkbox"/> CHANGE WELL NAME <input type="checkbox"/> CHANGE WELL STATUS <input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS <input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> DEEPEN <input type="checkbox"/> FRACTURE TREAT <input type="checkbox"/> NEW CONSTRUCTION <input type="checkbox"/> OPERATOR CHANGE <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/> PLUG BACK <input type="checkbox"/> PRODUCTION (START/RESUME) <input type="checkbox"/> RECLAMATION OF WELL SITE <input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	<input type="checkbox"/> REPERFORATE CURRENT FORMATION <input type="checkbox"/> SIDETRACK TO REPAIR WELL <input type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> TUBING REPAIR <input type="checkbox"/> VENT OR FLARE <input type="checkbox"/> WATER DISPOSAL <input type="checkbox"/> WATER SHUT-OFF <input checked="" type="checkbox"/> OTHER: <b>CEMENT</b>

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Surface casing lead cement will be 300 sacks (630 cubic feet) Halliburton Light Standard with 2% bentonite + 2% CaCl<sub>2</sub> + 1/4 #/sack Flocele = 12.3 lb/gal & 2.10 cu. ft./sack. Shoe cement will be 200 sacks (238 cubic feet) Halliburton Class G + 1% CaCl<sub>2</sub> + 1/4 #/sack Flocele = 15.6 lb/gal & 1.19 cu. ft./sack.

Long string cement will be run from TD to 1,150' (≥200' above surface casing shoe). Lead cement will be 330 sacks Halliburton Light Standard with 5 #/sack gilsonite + 1/4 #/sack Flocele = 12.4 lb/gal & 1.95 cu. ft./sack. Primary cement will be 200 sacks 50/50 Poz Standard with 1/4 #/sack Flocele + 5 #/sack gilsonite + 0.6% Halad 9 + 0.2% CFR-3 = 13 lb./gal. & 1.56 cu. ft./sack.

NAME (PLEASE PRINT) <b>BRIAN WOOD</b>		(505) 466-8120		TITLE <b>CONSULTANT</b>		FAX: (505) 466-9682	
SIGNATURE		DATE <b>9-7-02</b>		cc: Ferris			

(This space for State use only)

RECEIVED

SEP 10 2002

DIVISION OF  
OIL, GAS AND MINING

(5/2000)

(See Instructions on Reverse Side)

*Amended By Sundry Rec'd 10/4/2002 DKO*

002

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5. LEASE DESIGNATION AND SERIAL NUMBER:	ML-47152
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	N/A
7. UNIT or CA AGREEMENT NAME:	N/A
8. WELL NAME and NUMBER:	MARIE OGDEN STATE 1
9. API NUMBER:	43-037-31825
10. FIELD AND POOL, OR WILDCAT:	WILDCAT

1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____
2. NAME OF OPERATOR: ST OIL COMPANY
3. ADDRESS OF OPERATOR: 1801 BROADWAY, #600 DENVER STATE CO ZIP 80202
PHONE NUMBER: 303 296-1908

4. LOCATION OF WELL FOOTAGES AT SURFACE: 1910 FNL & 1850 FWL	COUNTY: SAN JUAN
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SENW 22 31s 23e SL	STATE: UTAH

**11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: CEMENT
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

**12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.**

Surface casing lead cement will be 750 sacks (892.5 cubic feet) Halliburton Class G + 1% CaCl<sub>2</sub> + 1/4 #/sack Flocele = 15.6 lb/gal & 1.19 cu. ft./sack. Excess = 111%.

Long string cement will be run from TD to 1,150' (≥200' above surface casing shoe). Lead cement will be 330 sacks Halliburton Light Standard with 5 #/sack gilsonite + 1/4 #/sack Flocele = 12.4 lb/gal & 1.95 cu. ft./sack. Primary cement will be 270 sacks Halliburton Class G + 1% CaCl<sub>2</sub> + 1/4 #/sack Flocele = 15.6 lb/gal & 1.19 cu. ft./sack. Total volume = 964.8 cubic feet. Excess = 30%.

NAME (PLEASE PRINT) BRIAN WOOD	(505) 466-8120	TITLE CONSULTANT	FAX: (505) 466-9682
SIGNATURE <i>Brian Wood</i>		DATE 10-1-02	cc: Ferris

(This space for State use only)

**RECEIVED**

(5/2000)

(See Instructions on Reverse Side)

OCT 04 2002  
DIVISION OF  
OIL, GAS AND MINING

WELL DATA

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

WELL SEARCH

WELL DATA

WELL HISTORY

WELL ACTIVITY

WELL NAME **MARIE OGDEN STATE 1** API NUMBER **4303731825** WELL TYPE **OW** WELL STATUS **APD**  
OPERATOR **ST OIL COMPANY** ACCOUNT **N2190** ALT. ADDRESS FLAG **#** FIRST PRODUCTION   
FIELD NAME **WILDCAT** FIELD NUMBER **1** LA / PA DATE

WELL LOCATION:

SURF LOCATION   
Q. S. T. R. M. **SENW** **22** **31.0 S** **23.0 E** **S**  
COUNTY **SAN JUAN**

UTM Coordinates:

SURFACE - N **4215482.00** BHL - N   
SURFACE - E **641544.00** BHL - E

LATITUDE **38.07790**  
LONGITUDE **109.38622**

CONFIDENTIAL FLAG   
CONFIDENTIAL DATE   
DIRECTIONAL / HORIZONTAL   
HORIZONTAL LATERALS   
ORIGINAL FIELD TYPE **W**  
WILDCAT TAX FLAG   
CB-METHANE FLAG   
ELEVATION **6498 GR**  
BOND NUMBER **NZS450192**  
BOND TYPE **3**

LEASE NUMBER **ML-47152**  
MINERAL LEASE TYPE **3**  
SURFACE OWNER TYPE **3**  
INDIAN TRIBE   
C.A. NUMBER

UNIT NAME

CUMULATIVE PRODUCTION:

OIL   
GAS   
WATER

COMMENTS

Create New Rec

View

Print Recd

To History

To Activity

Print Recd

Export Recd

↑

↓

















Well name:

**09-02 ST Oil Marie Ogden State #**Operator: **ST Oil Company**String type: **Production**

Project ID:

43-037-31825

Location: **San Juan County****Design parameters:****Collapse**

Mud weight: 10.000 ppg

Design is based on evacuated pipe.

**Minimum design factors:****Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No

Surface temperature: 75 °F

Bottom hole temperature: 151 °F

Temperature gradient: 1.40 °F/100ft

Minimum section length: 375 ft

Cement top: 2,011 ft

**Burst**

Max anticipated surface

pressure: 0 psi

Internal gradient: 0.519 psi/ft

Calculated BHP 2,820 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)

8 Round LTC: 1.80 (J)

Buttress: 1.60 (J)

Premium: 1.50 (J)

Body yield: 1.60 (B)

Non-directional string.

Tension is based on buoyed weight.

Neutral point: 4,607 ft

Run	Segment		Nominal		End	True Vert	Measured	Drift	Est.
Seq	Length	Size	Weight	Grade	Finish	Depth	Depth	Diameter	Cost
	(ft)	(in)	(lbs/ft)			(ft)	(ft)	(in)	(\$)
1	5428	5.5	15.50	K-55	ST&C	5428	5428	4.825	22677

Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension
Seq	Load	Strength	Design	Load	Strength	Design	Load	Strength	Design
	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(kips)	(kips)	Factor
1	2820	4040	1.43	2820	4810	1.71	71.4	222	3.11 J

Prepared DKD  
by: Utah Dept. of Natural Resources

Date: October 8,2002  
Salt Lake City, Utah

**ENGINEERING STIPULATIONS: NONE**

Collapse strength is based on the Westcott, Dunlop &amp; Kemler method of biaxial correction for tension.

Collapse is based on a vertical depth of 5428 ft, a mud weight of 10 ppg The casing is considered to be evacuated for collapse purposes.

Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

Well name:  
Operator: **ST Oil Company**  
String type: **Surface**  
Location: **San Juan County**

## 09-02 ST Oil Marie Ogden State #

Project ID:  
43-037-31825

### Design parameters:

#### Collapse

Mud weight: 8.700 ppg  
Design is based on evacuated pipe.

### Minimum design factors:

#### Collapse:

Design factor 1.125

#### Burst:

Design factor 1.00

### Environment:

H2S considered? No  
Surface temperature: 75 °F  
Bottom hole temperature: 94 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 375 ft

Cement top: Surface

#### Burst

Max anticipated surface pressure: 0 psi  
Internal gradient: 0.519 psi/ft  
Calculated BHP 701 psi

No backup mud specified.

#### Tension:

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.60 (B)

Tension is based on buoyed weight.  
Neutral point: 1,176 ft

Non-directional string.

#### Re subsequent strings:

Next setting depth: 5,428 ft  
Next mud weight: 10.000 ppg  
Next setting BHP: 2,820 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 1,350 ft  
Injection pressure 1,350 psi

Run	Segment		Nominal		End	True Vert	Measured	Drift	Est.
Seq	Length	Size	Weight	Grade	Finish	Depth	Depth	Diameter	Cost
	(ft)	(in)	(lbs/ft)			(ft)	(ft)	(in)	(\$)
1	1350	9.625	36.00	J-55	ST&C	1350	1350	8.796	11734
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension
Seq	Load	Strength	Design	Load	Strength	Design	Load	Strength	Design
	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(kips)	(kips)	Factor
1	610	2020	3.31	701	3520	5.02	42.3	394	9.30 J

Prepared DKD  
by: Utah Dept. of Natural Resources

Date: October 8, 2002  
Salt Lake City, Utah

#### ENGINEERING STIPULATIONS: NONE

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Collapse is based on a vertical depth of 1350 ft, a mud weight of 8.7 ppg The casing is considered to be evacuated for collapse purposes.

Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

09-02 ST Oil Marie Ogden #  
Casing Schematic

Surface

Entry  
Cement

413' -  
Nuvco

1333' -  
Cure  
9-5/8"  
MW 8.7  
Frac 19.3

1430' -  
cutler

TOC @  
0.

Surface  
1350. MD

w/19% washout

BOP

$$\frac{BOP}{(6.052)(10)(5428)} = 2823 \text{ psi}$$

Anticipated = 2200 psi

$$\frac{Gas}{(0.12)(5428)} = 651 \text{ psi}$$

$$MASP = 2172 \text{ psi}$$

3M BOP proposed

Adequate

DKD

10/8/02

5053'  
Upper Ismex  
5098'  
Anhyd  
5113'  
Bottan  
5312'  
Gotham  
5362'  
Desert Creek  
5-1/2"  
MW 10.

TOC @  
2011.

Production  
5428. MD

-4240' TOC Tail

w/15% washout





State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210  
PO Box 145801  
Salt Lake City, Utah 84114-5801  
(801) 538-5340 telephone  
(801) 359-3940 fax  
(801) 538-7223 TTY  
www.nr.utah.gov

Michael O. Leavitt  
Governor  
Robert L. Morgan  
Executive Director  
Lowell P. Braxton  
Division Director

October 28, 2002

ST Oil Company  
1801 Broadway, Suite 600  
Denver, CO 80202

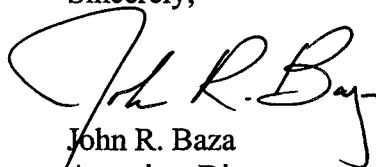
Re: Marie Ogden State #1 Well, 1910' FNL, 1850' FWL, SE NW, Sec. 22, T. 31 South,  
R. 23 East, San Juan County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. § 40-6-1 *et seq.*, Utah Administrative Code R649-3-1 *et seq.*, and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-037-31825.

Sincerely,



John R. Baza  
Associate Director

pb

Enclosures

cc: San Juan County Assessor  
SITLA

Operator: ST Oil Company  
Well Name & Number Marie Ogden State #1  
API Number: 43-037-31825  
Lease: ML-47152

Location: SE NW Sec. 22 T. 31 South R. 23 East

#### Conditions of Approval

1. **General**

Compliance with the requirements of Utah Admin. R. 649-1 *et seq.*, the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. **Notification Requirements**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- 24 hours prior to cementing or testing casing
- 24 hours prior to testing blowout prevention equipment
- 24 hours prior to spudding the well
- within 24 hours of any emergency changes made to the approved drilling program
- prior to commencing operations to plug and abandon the well

The following are Division of Oil, Gas and Mining contacts and their work telephone numbers (please leave a voice mail message if the person is not available to take the call):

- Dan Jarvis at (801) 538-5338
- Carol Daniels at (801) 538-5284 (spud)

3. **Reporting Requirements**

All required reports, forms and submittals will be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical or paleontological remains be encountered during your operations, you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.

5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)

6. Operator shall comply with applicable recommendations resulting from Resource Development Coordinating Committee review. Statements attached.

7. This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

## WELL DATA

006

WELL SEARCH

WELL DATA

WELL HISTORY

WELL ACTIVITY

WELL NAME **MARIE OGDEN STATE 1** API NUMBER **4303731825** WELL TYPE **OW** WELL STATUS **APD**  
OPERATOR **ST OIL COMPANY** ACCOUNT **N2190** ALT. ADDRESS FLAG **#** FIRST PRODUCTION   
FIELD NAME **WILDCAT** FIELD NUMBER **1** LA / PA DATE

## WELL LOCATION:

SURF LOCATION Q. S. T. R. M. **SENW** **22** **31.0 S** **23.0 E** **S**COUNTY **SAN JUAN**

## UTM Coordinates:

SURFACE - N **4215482.00** BHL - N SURFACE - E **641544.00** BHL - E LATITUDE **38.07790**LONGITUDE **109.38622**CONFIDENTIAL FLAG CONFIDENTIAL DATE DIRECTIONAL | HORIZONTAL HORIZONTAL LATERALS ORIGINAL FIELD TYPE **W**WILDCAT TAX FLAG CB-METHANE FLAG ELEVATION **6498 GR**BOND NUMBER **NZS450192**BOND TYPE **3**LEASE NUMBER **ML-47152**MINERAL LEASE TYPE **3**SURFACE OWNER TYPE **3**INDIAN TRIBE C.A. NUMBER UNIT NAME 

## CUMULATIVE PRODUCTION:

OIL GAS WATER COMMENTS 

Create New Rec

Save

Cancel Change

To History

To Activity

Print Recd

Export Recd



**From:** Brad Hill  
**To:** Dan Jarvis; Gil Hunt; Lisha Cordova  
**Date:** 11/21/02 4:58PM  
**Subject:** Marie Ogden Well

I just talked to Rich Farris ([303]296-1908) with ST Oil. He was calling about the stipulation for a Division approved sub-liner if the pit was built in rock. He said the pit is in rock and asked if sand or bentonite could be used under a 20 mil liner. I told him that that would be acceptable. He said the well would probably spud early next week. He was also giving notice, as stipulated, in case we want to inspect the pit.

11/25/02 op. ch'd to Geotextile liner instead of bentonite & 20 mil.  
Loc. almost complete, rig on loc. probably next week or this  
weekend. Mark will witness cementing of casing.





007



# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt  
Governor

Kathleen Clarke  
Executive Director

Lawell P. Braxton  
Division Director

1594 West North Temple, Suite 1210

PO Box 145801

Salt Lake City, Utah 84114-5801

801-538-5340

801-359-3940 (Fax)

801-538-7223 (TDD)

**RECEIVED**

DEC 02 2002

DIVISION OF  
OIL, GAS AND MINING

## UTAH DIVISION OF OIL, GAS AND MINING FACSIMILE COVER SHEET

DATE:

12/2/2002

FAX #:

801-2538-2222

ATTN:

Mr. Dan Jarvis

COMPANY:

SLC - Utah DOGM

DEPARTMENT:

Oil &amp; Gas

NUMBER OF PAGES: (INCLUDING THIS ONE)

4

FROM:

M. Jones

If you do not receive all of the pages, or if they are illegible, please call (801)538-5340.  
We are sending from a sharp facsimile machine. Our telecopier number is (801)359-3940.

**MESSAGES:**

Halibuton job sheets

Surface job - Marie Ogden St. #1

**Important:** This message is intended for the use of the individual or entity of which it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and return this original message to us at the above address via regular postal service. Thank you.

**S T OIL COMPANY****MARIE OGDEN STATE****1****API Well No.:  
43-037-31825****11/30/2002  
SAN JUAN****HALLIBURTON & YOU  
A WINNING TEAM.****9 5/8" SURFACE PIPE****Customer Representative:  
RANDY SHELTON/ 435-459-1027  
Halliburton Operator:  
STEVE STROMBERG/ 486-0167  
Ticket No.:  
2166090**



**CEMENT JOB SUMMARY SHEET****Job Type** 9 5/8" SURFACE PIPE

	Size	Weight	Grade	Measured Depth
Casing	9 5/8	36	J55	1,345
Drill Pipe				
Tubing				
Hole Size	12 1/4			1,345
Mud Weight		8.5		


**CEMENT DATA**

Spacer	30 Bbls FRESH WATER		
Cement 1	STD		750 Sacks
Additives	1% CaCl <sub>2</sub> , 1/4# FLOCELE		
	Weight (lb/gal) 15.80	Yield (cuft/sk) 1.18	Water (gal/sk) 5.28

**Displacement** 101 8.34 (lb/gal)**CEMENTING EQUIPMENT**

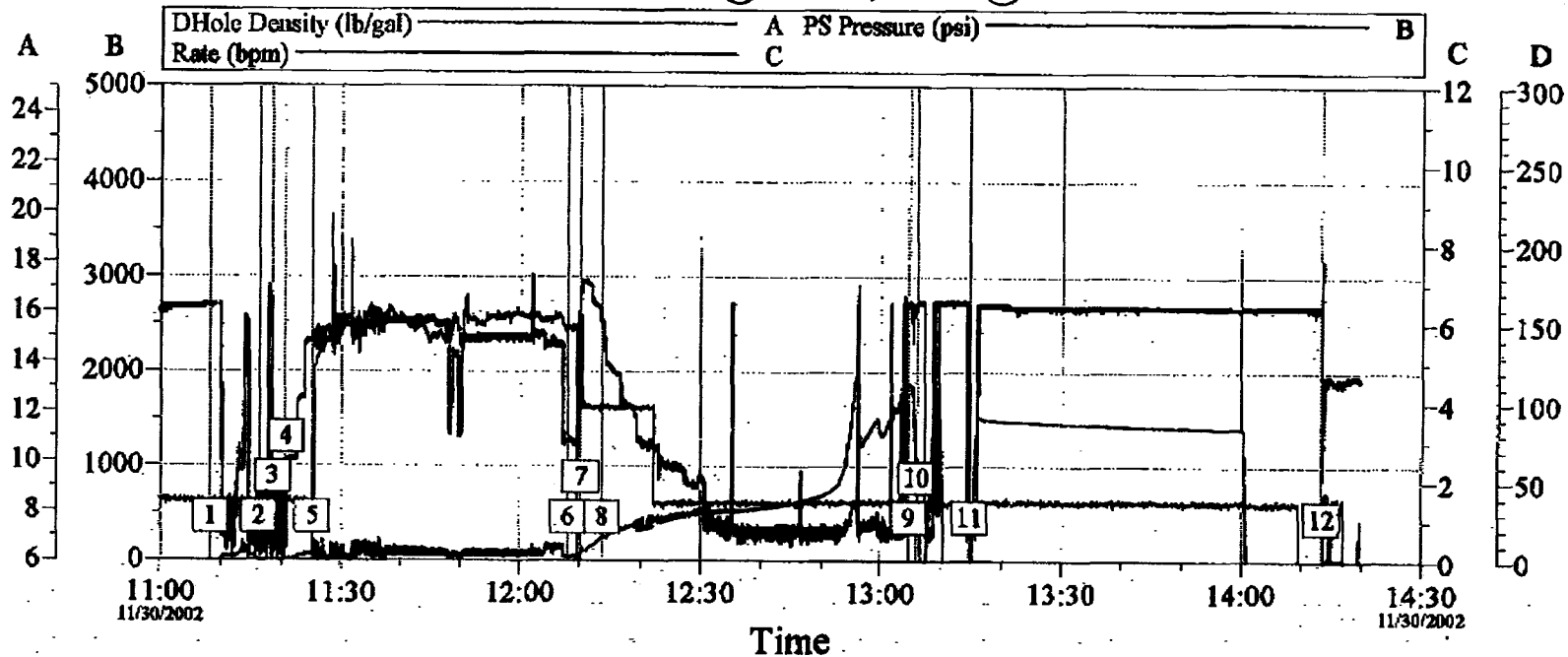
Provider	HES		
Guide Shoe	1 ea.	Centralizers	5 ea.
Float Shoe	ea.	Plug Type	5 WIPER ea.
Float Collar	ea.	Packer	ft.
DV Tool	ft.	Retainer	ft.

**SIGNATURE**

		<h1>JOB LOG</h1>		TICKET # <b>2166090</b>	TICKET DATE <b>11/30/02</b>
REGION <b>NORTH AMERICA</b>		NWA / COUNTRY <b>ROCKY MOUNTAINS</b>		BOA / STATE <b>UTAH</b>	COUNTY <b>SAN JUAN</b>
NBU ID / ENPL # <b>FA0104/217406</b>		H.E.S. EMPLOYEE NAME <b>STEVE STROMBERG</b>		POL DEPARTMENT <b>ZONAL ISOLATION 10003</b>	
LOCATION <b>Farmington, N.M.</b>		COMPANY <b>S T OIL COMPANY</b>		CUSTOMER REP / PHONE <b>RANDY SHELTON/ 435-459-1027</b>	
TICKET AMOUNT		WELL TYPE <b>OIL/ ISMAY, DESERT CREEK</b>		APPLN # <b>43-037-31825</b>	
WELL LOCATION <b>MONTICELLO, UTAH</b>		DEPARTMENT <b>ZONAL ISOLATION</b>		JOB PURPOSE CODE <b>9 5/8" SURFACE PIPE</b>	
EABE / WELL # <b>MARIE OGDEN STAT</b>		SEC / TWP / RNG <b>SEC 22 / TWP 31 S / RNG 22 E</b>		Well No. <b>1</b>	

[illegible]

# 9 5/8" SURFACE PIPE CASING SET @ 1345', F.C. @ 1303'.



## Event Log

1 Start Job	11:08:24	2 Start Job	11:16:24	3 Test Lines	11:18:36
4 Pump Spacer 1	11:20:47	5 Pump Cement	11:25:15	6 Drop Top Plug	12:07:59
7 Pump Displacement	12:10:08	8 Disp. Reached Cement	12:13:36	9 Bump Plug	13:04:46
10 Test Floats	13:05:58	11 Pressure Test Casing	13:14:44	12 End Job	14:13:19

Customer: S T OIL CO.	Job Date: 11/30/02	Ticket #: 2166090
Well Description: OIL	UWI: 43-037-31825	STROMBERG HERRERA

**HALLIBURTON**  
CemWin v1.4.0  
30-Nov-02 14:45

# Cementing Calculations for Surface Pipe and Production Strings

## Well Information

Hole Size 12 1/4 in  
 TD 1345 ft  
 Casing Size 9 5/8 in  
 Casing Depth 1345 ft  
 Casing Weight 36 lb/ft  
 Shoe Joint Length 42 ft  
 Float Collar @ 1303 ft  
 Wellbore Fluid 8.5 lb/gal  
 Spacer/Flush 8.3 lb/gal  
 Displacement Fluid 8.3 lb/gal  
 Desired TOC 0 ft

V&H: Casing & Hole 17.833 lin.ft./bbl  
 Casing Capacity 0.0073 bbls/lin.ft.  
 Buoyancy Factor 2.304 lin.ft./cuft  
 Tail Cement 3.25 cuft/lin.ft.  
 Shoe Joint 154.37  
 Annulus Cement

## Cement/Slurry Information

	Tail Cement	Lead Cement 1	Lead Cement 2
Density (lb/gal)	15.60		0.00
Yield (cuft/sk)	1.18		0.00
Water Req. (gal/sk)	5.20		0.00
Spacer/Flush (bbls)			0.00
Initial Sacks	375.00		0.00
Calculated cu.ft.	442.50	0.00	0.00
% Excess	100.00		0.00
Total cu.ft.	885.00	0.00	0.00
Water Req. (bbls)	92.86	0.00	0.00
Sacks Required	750.00	0.00	0.00
Barrels of Slurry	157.62	0.00	0.00
	2767.46	0.00	0.00
		79.37	0.00
	-1422.46	0.00	0.00
		0.00	0.00

## Calculated Values

Displacement bbls  
 PSI to Land Plug pai  
 Top of Cement  
 Tail ft  
 Lead 1 ft  
 Lead 2 ft  
 Cement Excess bbls  
 PSI to Lift Pipe pai

NOTE! The lineal feet of Spacer/Flush is on TOC & not pumped out of the annulus

## Differential Pressure

	Density	Hydrostatic factor	Feet	Hydrostatic PSI	Differential PSI
Well Fluid	8.5	0.4418			
Disp. Fluid	8.3	0.4314	1303.00	582.17	
Tail Cement	15.6	0.8109	2767.46	2244.14	
Lead Cement 1		0.0000	-1422.46	0.00	
Lead Cement 2	0	0.0000	0.00	0.00	
Spacer/Flush	8.3	0.4314	0.00	0.00	
				2244.14	1681.97

## Displacement in bbls

100.72

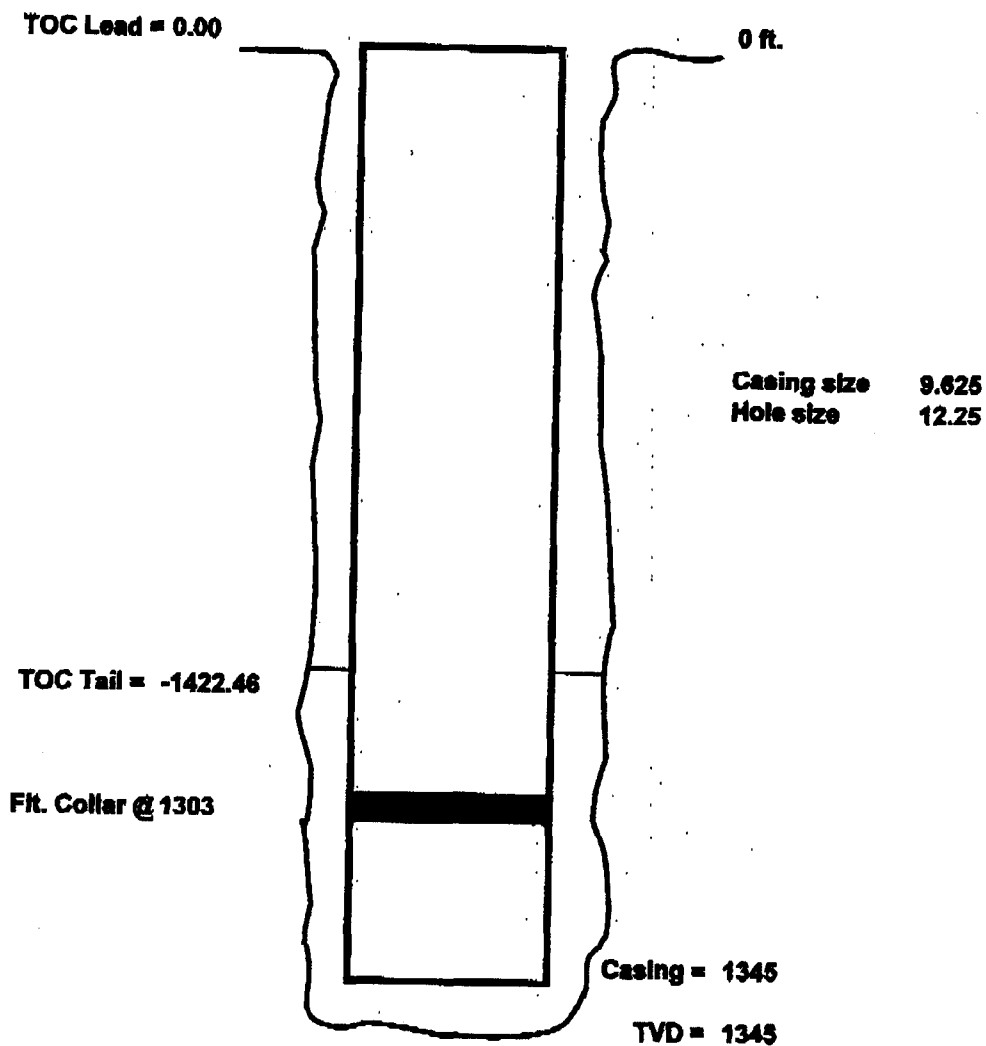
## Absolute Volume

Tail 3310.12 gals  
 Lead 1 0.00 gals  
 Lead 2 0.00 gals

Customer  
 Well Name  
 Lease  
 County  
 Ticket #  
 Date  
 Cementer

S.T.OIL COMPANY  
 1  
 MARIE OGDEN STATE  
 SAN JUAN  
 2186000  
 STEVE STROMBERG

# **Well Schematic**





# State of Utah

DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210

PO Box 145801

Salt Lake City, Utah 84114-5801

(801) 538-5340 telephone

(801) 359-3940 fax

(801) 538-7223 TTY

www.nr.utah.gov

Michael O. Leavitt  
Governor

Robert L. Morgan  
Executive Director

Lowell P. Braxton  
Division Director

## ***CONDITIONS OF APPROVAL TO PLUG AND ABANDON WELL***

Well Name and Number:

Marie Ogden State No. 1

API Number:

43-037-31825

Operator:

ST Oil Company

Reference Document:

Original Sundry Notice dated December 10, 2002,  
received by DOGM on December 10, 2002

### Approval Conditions:

1. Notify the Division at least 24 hours prior to conducting abandonment operations. Please call Dan Jarvis at 801-538-5338.
2. All balanced plugs shall be tagged to ensure that they are at the depths specified in the intent.
3. All annuli shall be cemented from a minimum depth of 100' to the surface.
4. Surface reclamation shall be done in accordance with R649-3-34 – Well Site Restoration.
5. All requirements in the Oil and Gas Conservation General Rule R649-3-24 shall apply.
6. If there are any changes to the plugging procedure or the wellbore configuration, notify Dustin Doucet at 801-538-5281 prior to continuing with the procedure.
7. All other requirements for notice and reporting in the Oil and Gas Conservation General Rules shall apply.

Dustin K. Doucet  
Petroleum Engineer

December 10, 2002

Date

## Wellbore Diagram

API Well No: 43-037-31825-00-00

Permit No:

Well Name/No: MARIE OGDEN STATE 1

Company Name: ST OIL COMPANY

Location: Sec: 22 T: 31S R: 23E Spot: SENW

Coordinates: X: 641544 Y: 4215482

Field Name: WILDCAT

County Name: SAN JUAN

## String Information

String	Bottom (ft sub)	Diameter (inches)	Weight (lb/ft)	Length (ft)
HOL1	89	17.5		
COND	89	13.325	0	89
HOL2	1345	12.25		
SURF	1345	9.625	36	1345
HOL3	5440	7.875		

Plug 3

Cement from 89 ft. to surface

Hole: 17.5 in. @ 89 ft.

Cement from 1345 ft. to surface

Conductor: 13.325 in. @ 89 ft.

Hole: 12.25 in. @ 1345 ft.

Surface: 9.625 in. @ 1345 ft.

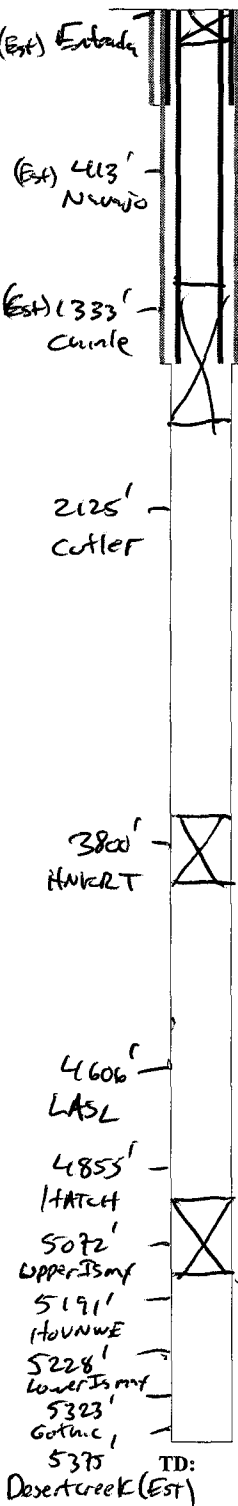
## Cement Information

String	BOC (ft sub)	TOC (ft sub)	Class	Sacks
COND	89	0	UK	110
SURF	1345	0	G	750

## Perforation Information

## Formation Information

Formation	Depth	Formation	Depth
CTLR	2125		
HNKRT	3800		
LASL	4606		
HATCH	4855		
ISMY	5072		
HOVNWE	5191		
ISMY	5228		
GOTH	5323		
DSCR	5375		



Plug 2

$$55' / (1.18)(2.053) = 23 \text{ SK}$$

$$(27 \text{ SK})(1.18)(2.304) = 73'$$

TOC @ 1272'

Add 60 SK Plug  
(+ 3850 - 3700')

Plug 1

$$(75 \text{ SK})(1.18)(2.053) = 182'$$

TOC @ 4918'

Hole: 7.875 in. @ 5440 ft.

Capacities

$$9 \frac{7}{8}'' \text{ casing} = 2.304 \text{ ft/cf}$$

$$\text{PBT D: } \frac{7 \frac{7}{8}'' \text{ hole}}{1.8335} = \frac{[(1.24)(7.875)]^2}{1.8335} = 0.4871 = 2.053 \text{ ft/cf}$$



**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

009

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-47152
2. NAME OF OPERATOR: ST Oil Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: 1801 Broadway, #600 Denver CO 80202		7. UNIT or CA AGREEMENT NAME:
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1910' fnl x 1850' twl		8. WELL NAME and NUMBER: Marie Ogden State No. 1
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SENW 22 31S 23E		9. API NUMBER: 037-31825
PHONE NUMBER: (303) 296-1908		10. FIELD AND POOL, OR WILDCAT: Wildcat

COUNTY: San Juan

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: 12/11/2002	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion:	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input checked="" type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER:
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

**Procedure to Plug Drilling Well:**

1. Spot 75 sack cement plug from 5100' to 4950' (Top of Ismay 5072')
2. Spot 50 sack cement plug from 3850' to 3700' (Top of Honaker Trail 3800')
3. Spot 50 sack plug from 1400' to 1290' (Surface Casing @ 1345')
4. Spot 20 sack cement plug from 50' to surface.
5. Erect Dry Hole Marker or weld on marker plate depending on surface requirements.

\* All Cement Class "G" 118<sup>5</sup> yield per Rich Ferris 12/10/02  
See Attached for other details:

NAME (PLEASE PRINT) Richard A. Ferris

TITLE Chief Operations Engineer

SIGNATURE

*Richard A. Ferris*

DATE 12/10/2002

(This space for State use only)

APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING

COPY SENT TO OPERATOR

Date: 12-10-02  
Initials: RHF

RECEIVED

DEC 10 2002

DIV. OF OIL, GAS &amp; MINING

DATE: 12/10/2002  
BY: *[Signature]*

\* See Attached Conditions of Approval

**ST Oil Company****Marie Ogden State No. 1 API # 43-037-31825**

SE NW, Section 22, T31S,23E

San Juan County, Utah

**Plugging And Abandonment Request 12-10-02**

Conductor: 13-3/8" set at 89' and cemented with 110 sacks circulated to surface.

Surface Casing: 9-5/8" set at 1345' and cemented with 750 sacks circulated to surface.

Open Hole section: 7-7/8" hole from 1345' to 5440'

**Tops:(Mudlogger)**

Cutler	2125'
Honaker Trail	3800'
La Salle	4606'
Hatch Cycle	4855'
Upper Ismay	5072'
Hovenweep	5191'
Lower Ismay	5228'
Gothic Shale	5323'
Desert Creek (Est.)	5375'
TD	5440'

**Procedure to plug:**

1. Spot 75 sack cement plug from 5100' to 4950' (Top of Ismay 5072')
2. Spot 50 sack cement plug from 3850' to 3700' (Top of Honaker Trail 3800')
3. Spot 50 sack cement plug from 1400' to 1290' (Surface Casing @ 1345')
3. Spot 20 sack cement plug from 50' to surface.
4. Erect Dry hole Marker or weld on marker plate depending on surface requirements.

# ST OIL COMPANY

## FACSIMILE TRANSMISSION

DATE: 12-10-02 TIME: 2:15 PM  
FAX#: 801-359-3940 PAGES: 3  
(including cover sheet)

TO: Dustin Doucet  
FROM: Rich Ferris

### ADDITIONAL COMMENTS:

For your review and approval!

If transmission is not complete, please call immediately. Ask for \_\_\_\_\_

**Confidentiality Notice:** The documents accompanying this telecopy transmission may contain confidential information which is legally privileged. The information is intended only for the use of the recipient named above. If you have received this telecopy in error, please immediately notify us by telephone to arrange for return of the original documents to us, and you are hereby notified that any disclosure, copying, distribution or the taking of any action in reliance of the contents of this telecopy information is strictly prohibited.

RECEIVED

DEC 10 2002

010

**pason**  
systems usa corp

16080 Table Mountain Parkway Ste 500 • Golden • CO • 80403  
720-880-2000 • FAX: 720-880-0016

www.pason.com

Friday, December 13, 2002

Oil & Gas Supervisor  
Utah Division Of Oil, Gas, & Mining  
1594 W. North Temple  
Suite 1210  
Salt Lake City, UT 84116

RE: ST OIL COMPANY  
MARIE OGDEN #~~4~~<sup>STATE 1</sup>  
SEC. 22, T31S, R23E  
SAN JUAN COUNTY, UT

43-037-31825

Dear Oil & Gas Supervisor:

Enclosed is the final computer colored log for the above referenced well.  
*log filed with log file*

We appreciate the opportunity to be of service to you and look forward to working with you again in the near future.

If you have any questions regarding the enclosed data, please contact us.

Sincerely,

*Bill Nagel*

Bill Nagel  
Geological Manager

BN/alb

Encl: 1 Final Computer Colored Log.

Cc: Rich Ferris, ST Oil Company, Denver, CO.

RECEIVED

DEC 17 2002

DIV. OF OIL, GAS & MINING

011

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS-WELL <input type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-47152
2. NAME OF OPERATOR: ST Oil Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: 1801 Broadway, #600 CITY Denver STATE CO ZIP 80202		7. UNIT or CA AGREEMENT NAME:
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1910' fm x 1850' fm QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SENW 22 31S 23E		8. WELL NAME and NUMBER: Marie Ogden State No. 1
PHONE NUMBER: (303) 296-1908		9. API NUMBER: 037-31825
COUNTY: San Juan		10. FIELD AND POOL, OR WILDCAT: Wilcat
STATE: UTAH		

## 11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: 11/28/2002	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: Spud Well
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

This well was spudded by Aztec Drilling Rig No. 289 at 3:30 AM on November 28, 2002.

**RECEIVED****DEC 23 2002****DIV. OF OIL, GAS & MINING**

NAME (PLEASE PRINT) Richard A. Ferris	TITLE Chief Operations Engineer
SIGNATURE <i>Richard A. Ferris</i>	DATE 12/17/2002

(This space for State use only)

012

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER _____		5. LEASE DESIGNATION AND SERIAL NUMBER: ML-47152
2. NAME OF OPERATOR: ST Oil Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: 1801 Broadway, #600 CITY Denver STATE CO ZIP 80202		7. UNIT or CO-AGREEMENT NAME:
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1910' frl x 1850' fwl		8. WELL NAME and NUMBER: Marie Ogden State No. 1
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SENW 22 31S 23E		9. API NUMBER: 037-31825
COUNTY: San Juan		10. FIELD AND POOL, OR WILDCAT: Wilcat
STATE: UTAH		

**11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION		
<input type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input checked="" type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input checked="" type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: 12/13/2002	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input type="checkbox"/> OTHER: _____
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

**12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.**

This drilling well was Plugged as follows on 12/13/2002 due to not finding any commercially productive hydrocarbons:

1. Spotted a 75 sack cement plug at 5115'. Tagged top with drill pipe at 4858'.
2. Spotted a 75 sack cement plug at 3870'. Tagged top with drill pipe at 3669'.
3. Spotted a 50 sack cement plug at 1395'. Tagged top with drill pipe at 1330'.
4. Spotted a 30 sack cement plug at 1330'.
5. Spotted a 50 sack cement plug at 50'. Circulated to surface.

Plugging Witnessed by Mark Jones, Utah Division Oil, Gas, & Mining.

**RECEIVED**  
**DEC 23 2002**  
DIV. OF OIL, GAS & MINING

NAME (PLEASE PRINT) <u>Richard A. Ferris</u>	TITLE <u>Chief Operations Engineer</u>
SIGNATURE <u>Richard A. Ferris</u>	DATE <u>12/17/2002</u>

(This space for State use only)

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

### ENTITY ACTION FORM

Operator: ST Oil Company  
Address: 1801 Broadway, Suite 600  
city Denver  
state CO zip 80202

Operator Account Number: N 2190

Phone Number: (303) 296-1908

## Well 1

API Number	Well Name		QQ	Sec	Twp	Rng	County
037-31825	Marie Ogden State No. 1		senw	22	31S	23E	San Juan
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
A	99999	13704	11/28/2002		11/20/2002		
Comments:							1-15-03

## Well 2

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
Comments:							

## Well 3

API Number	Well Name		QQ	Sec	Twp	Rng	County
Action Code	Current Entity Number	New Entity Number	Spud Date		Entity Assignment Effective Date		
Comments:							

## ACTION CODES:

- A - Establish new entity for new well (single well only)
- B - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- D - Re-assign well from one existing entity to a new entity
- E - Other (Explain in 'comments' section)

Richard A. Ferris

Name (Please Print)

*Richard A. Ferris*

Signature

Chief Operations Engineer

1/9/2002

Title

Date

**RECEIVED**  
**JAN 13 2003**  
DIV. OF OIL, GAS & MINING

**STATE OF UTAH**  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

**CONFIDENTIAL** FORM 9

**SUNDRY NOTICES AND REPORTS ON WELLS**

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

1. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <u>Dry Hole</u>		5. LEASE DESIGNATION AND SERIAL NUMBER: <b>ML-47152</b>
2. NAME OF OPERATOR: <b>ST Oil Company</b>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
3. ADDRESS OF OPERATOR: <b>1081 Broadway, St. 600</b> CITY <b>Denver</b> STATE <b>CO</b> ZIP <b>80202</b>		7. UNIT or CA AGREEMENT NAME:
4. LOCATION OF WELL FOOTAGES AT SURFACE: <b>1910' fml x 1850' fwl</b>		8. WELL NAME and NUMBER: <b>Marie Ogden State No. 1</b>
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: <b>SENW 22 31S 23E</b>		9. API NUMBER: <b>037-31825</b>
COUNTY: <b>San Juan</b>		10. FIELD AND POOL, OR WILDCAT: <b>Wildcat</b>
STATE: <b>UTAH</b>		

**11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION		
<input checked="" type="checkbox"/> NOTICE OF INTENT (Submit in Duplicate) Approximate date work will start: _____	<input type="checkbox"/> ACIDIZE	<input type="checkbox"/> DEEPEN	<input type="checkbox"/> REPERFORATE CURRENT FORMATION
	<input type="checkbox"/> ALTER CASING	<input type="checkbox"/> FRACTURE TREAT	<input type="checkbox"/> SIDETRACK TO REPAIR WELL
	<input type="checkbox"/> CASING REPAIR	<input type="checkbox"/> NEW CONSTRUCTION	<input type="checkbox"/> TEMPORARILY ABANDON
	<input type="checkbox"/> CHANGE TO PREVIOUS PLANS	<input type="checkbox"/> OPERATOR CHANGE	<input type="checkbox"/> TUBING REPAIR
	<input type="checkbox"/> CHANGE TUBING	<input type="checkbox"/> PLUG AND ABANDON	<input type="checkbox"/> VENT OR FLARE
<input type="checkbox"/> SUBSEQUENT REPORT (Submit Original Form Only) Date of work completion: _____	<input type="checkbox"/> CHANGE WELL NAME	<input type="checkbox"/> PLUG BACK	<input type="checkbox"/> WATER DISPOSAL
	<input type="checkbox"/> CHANGE WELL STATUS	<input type="checkbox"/> PRODUCTION (START/RESUME)	<input type="checkbox"/> WATER SHUT-OFF
	<input type="checkbox"/> COMMINGLE PRODUCING FORMATIONS	<input type="checkbox"/> RECLAMATION OF WELL SITE	<input checked="" type="checkbox"/> OTHER: <u>Hold Confidential</u>
	<input type="checkbox"/> CONVERT WELL TYPE	<input type="checkbox"/> RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Request that data be held confidential.

**RECEIVED**  
**FEB 13 2003**  
DIV. OF OIL, GAS & MINING

NAME (PLEASE PRINT) <u>Richard A. Ferris</u>	TITLE <u>Chief Operations Engineer</u>
SIGNATURE <u>Richard A. Ferris</u>	DATE <u>2/11/2003</u>

(This space for State use only)



015

CONFIDENTIAL

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

AMENDED REPORT ☐ FORM 8  
(highlight changes)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☐ DRY ☒ OTHER \_\_\_\_\_

b. TYPE OF WORK: NEW WELL ☒ HORIZ. LATS. ☐ DEEP-EN ☐ RE-ENTRY ☐ DIFF. RESVR. ☐ OTHER \_\_\_\_\_

2. NAME OF OPERATOR: ST Oil Company

3. ADDRESS OF OPERATOR: 1801 Broadway, Suite 60 City Denver STATE CO ZIP 80202 PHONE NUMBER: (303) 296-1908

4. LOCATION OF WELL (FOOTAGES):  
AT SURFACE: 1910' fnl x 1850' fwl  
AT TOP PRODUCING INTERVAL REPORTED BELOW: 1910' fnl x 1850' fwl  
AT TOTAL DEPTH: 1910' fnl x 1850' fwl

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-47152

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT or CA AGREEMENT NAME

8. WELL NAME and NUMBER: Marie Ogden State No.1

9. API NUMBER: 43-037-31825

10. FIELD AND POOL, OR WILDCAT: Wildcat

11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: SENW 22 31S 23E

12. COUNTY: San Juan 13. STATE: UTAH

14. DATE SPURRED: 11/28/2002 15. DATE T.D. REACHED: 12/11/2002 16. DATE COMPLETED: 12/13/2002 ABANDONED ☒ READY TO PRODUCE ☐

17. ELEVATIONS (DF, RKB, RT, GL): 6,510 KB; 6,498' GL

18. TOTAL DEPTH: MD 5,430 TVD 5,430 19. PLUG BACK T.D.: MD 0 TVD 0 20. IF MULTIPLE COMPLETIONS, HOW MANY? \*

21. DEPTH BRIDGE MD PLUG SET: TVD

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each): Array Induction-GR-SP, CNLD-GR, BHC Sonic-GR, Mud Log - 12-20-02

23. WAS WELL CORED? NO ☐ YES ☒ (Submit analysis)  
WAS DST RUN? NO ☐ YES ☒ (Submit report)  
DIRECTIONAL SURVEY? NO ☒ YES ☐ (Submit copy)

PERIOD  
EXPIRED  
ON 1-13-04

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
17-1/2"	13-3/8 J	48#	0	89		Class B 110	23	Circ to Sur	0
12-1/4"	9-5/8 K	36#	0	1,345		Class G 750	157	Circ to Sur	0

25. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)

26. PRODUCING INTERVALS

FORMATION NAME	TOP (MD)	BOTTOM (MD)	TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD)	SIZE	NO. HOLES	PERFORATION STATUS
(A)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(B)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(C)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>
(D)								Open <input type="checkbox"/> Squeezed <input type="checkbox"/>

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL

29. ENCLOSED ATTACHMENTS:

- ☐ ELECTRICAL/MECHANICAL LOGS ☒ GEOLOGIC REPORT ☒ DST REPORT ☐ DIRECTIONAL SURVEY  
☐ SUNDRY NOTICE FOR PLUGGING AND CEMENT VERIFICATION ☒ CORE ANALYSIS ☐ OTHER: \_\_\_\_\_

30. WELL STATUS:

P&A

RECEIVED

FEB 13 2003

DIV. OF OIL, GAS & MINING

# CONFIDENTIAL

## 31. INITIAL PRODUCTION

### INTERVAL A (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	INTERVAL STATUS:

### INTERVAL B (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	INTERVAL STATUS:

### INTERVAL C (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	INTERVAL STATUS:

### INTERVAL D (As shown in item #26)

DATE FIRST PRODUCED:	TEST DATE:	HOURS TESTED:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS – MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	INTERVAL STATUS:

## 32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

## 33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

## 34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
Upper Ismay	5,110	5,170	Core #1 mudstone &, anhydrite	Entrada	43
Upper Ismay	5,170	5,232	Core #2 mudstone & shale	Navajo SS	434
Lower Ismay	5,275	5,335	Core #3 anhydrite, dolomite & shale	Kaventa	844
Lower Ismay	5,310	5,335	Dst #1 15-60-60-369 minutes: IHP 2669; IOP 66-216; ISIP 1852; FOP 247-442; FSIP 1882; FHP 2670; 40' GCM 774' SALT WATER	Winqate	1,026
				Chinle	1,352
				Shinarump	1,730
				Honaker Trail	3,730
				Upper Ismay	5,094
				Lower Ismay	5,224
				Desert Creek	5,372

## 35. ADDITIONAL REMARKS (Include plugging procedure)

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.

NAME (PLEASE PRINT) Richard A. Ferris

TITLE Chief Operations Engineer

SIGNATURE Richard A. Ferris

DATE 2/11/2003

This report must be submitted within 30 days of

- completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation

- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

\* ITEM 20: Show the number of completions if production is measured separately from two or more formations.

\*\* ITEM 24: Cement Top – Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to: Utah Division of Oil, Gas and Mining  
1594 West North Temple, Suite 1210  
Box 145801  
Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

CONFIDENTIAL



---

**Baker Oil Tools**

Operator: ST Oil Co.  
Well Name: Marie Ogden State #1  
Dst No: 1  
Date: 12-08-2002

**Drillstem Test Report**

Hobbs NM  
Ph. (505) 397-3671



Baker Oil Tools

CONFIDENTIAL

Technical Services  
Ph. (928) 505-8389

ST OIL CO.		MARIE OGDEN STATE #1		DST #1																																																														
<b>Contractor</b> Aztec Drilling <b>Rig No.</b> <b>Spot</b> 1910' FNL & 1850' FWL <b>Sec</b> 22 <b>Twp</b> 31 S <b>Rng</b> 23 E <b>Field</b> Wildcat <b>County</b> San Juan <b>State</b> Utah <b>Elevation</b> 6510' KB <b>Formation</b> Lower Ismay	<b>Surface Choke</b> 1/8" <b>Bottom Choke</b> 3/4" <b>Hole Size</b> 7 7/8" <b>Core Hole Size</b> <b>DP Size &amp; Wt</b> 4 1/2" 16.60 <b>Wt Pipe</b> <b>ID of DC</b> 2 1/2" <b>Length of DC</b> 618' <b>Total Depth</b> 5335' <b>Type of Test</b> Conventional <b>Interval</b> 5310'- 5335'		<b>Mud Type</b> <b>Weight</b> 9.5 <b>Viscosity</b> 35 <b>Water Loss</b> <b>Filter Cake</b> <b>RW</b> @ Deg F  <b>B.H.T.</b> 550 Ppm  <b>Co. Rep.</b> Randy Shelton Deg F <b>Tester</b> Mike Fraley <b>Baker Dist</b> Hobbs NM <b>Ticket No</b> 361529																																																															
<b>Pipe recovery:</b> 813.5' Total fluid = 5.83 bbl., consisting of: 40.0' Slightly gas cut mud = 0.59 bbl. 773.5' Water = 5.26 bbl.  <b>Top:</b> 550 ppm Cl. <b>Middle:</b> 165,000 ppm Cl. <b>Bottom:</b> 165,000 ppm Cl.			<b>Pressure in Sampler</b> 50 psig <b>Volume of Sampler</b> 2600 cc <b>Volume of Sample</b> 2600 cc <b>Oil:</b> 0 cc <b>Water:</b> 2600 cc <b>Mud:</b> 0 cc <b>Gas:</b> 0 cu ft <b>Other:</b> 0 <b>Sample:</b> 168,000 ppm Cl.  <b>Gas/Oil Ratio</b> <b>Gravity</b> API @ 60 Deg F																																																															
			<b>Gauge Type</b> Electronic <b>No.</b> 21059 <b>Cap</b> 10000 psi <b>Depth</b> 5315 ft. <b>Inside</b> <b>Outside</b> X																																																															
			<table border="0"> <tr><td>Initial Hydrostatic</td><td>[A]</td><td>2645</td></tr> <tr><td>Initial Flow 1</td><td>[B]</td><td>66</td></tr> <tr><td>Final Flow 1</td><td>[C]</td><td>224</td></tr> <tr><td>Shut-in 1</td><td>[D]</td><td>1852</td></tr> <tr><td>Initial Flow 2</td><td>[E]</td><td>247</td></tr> <tr><td>Final Flow 2</td><td>[F]</td><td>442</td></tr> <tr><td>Shut-in 2</td><td>[G]</td><td>1882</td></tr> <tr><td>Initial Flow 3</td><td>[H]</td><td></td></tr> <tr><td>Final Flow 3</td><td>[I]</td><td></td></tr> <tr><td>Shut-in 3</td><td>[J]</td><td></td></tr> <tr><td>Final Hydrostatic</td><td>[K]</td><td>2611</td></tr> </table> <b>Opened Tool @</b> 23:36 hrs on 12-08-02 <table border="0"> <tr> <td><b>Test Times</b></td> <td><b>Reported</b></td> <td><b>Corrected</b></td> <td></td> </tr> <tr> <td>Flow 1</td> <td>15</td> <td>15</td> <td>min</td> </tr> <tr> <td>Shut-in 1</td> <td>60</td> <td>59</td> <td>min</td> </tr> <tr> <td>Flow 2</td> <td>60</td> <td>59</td> <td>min</td> </tr> <tr> <td>Shut-in 2</td> <td>369</td> <td>347</td> <td>min</td> </tr> <tr> <td>Flow 3</td> <td></td> <td></td> <td>min</td> </tr> <tr> <td>Shut-in 3</td> <td></td> <td></td> <td>min</td> </tr> </table>			Initial Hydrostatic	[A]	2645	Initial Flow 1	[B]	66	Final Flow 1	[C]	224	Shut-in 1	[D]	1852	Initial Flow 2	[E]	247	Final Flow 2	[F]	442	Shut-in 2	[G]	1882	Initial Flow 3	[H]		Final Flow 3	[I]		Shut-in 3	[J]		Final Hydrostatic	[K]	2611	<b>Test Times</b>	<b>Reported</b>	<b>Corrected</b>		Flow 1	15	15	min	Shut-in 1	60	59	min	Flow 2	60	59	min	Shut-in 2	369	347	min	Flow 3			min	Shut-in 3			min
Initial Hydrostatic	[A]	2645																																																																
Initial Flow 1	[B]	66																																																																
Final Flow 1	[C]	224																																																																
Shut-in 1	[D]	1852																																																																
Initial Flow 2	[E]	247																																																																
Final Flow 2	[F]	442																																																																
Shut-in 2	[G]	1882																																																																
Initial Flow 3	[H]																																																																	
Final Flow 3	[I]																																																																	
Shut-in 3	[J]																																																																	
Final Hydrostatic	[K]	2611																																																																
<b>Test Times</b>	<b>Reported</b>	<b>Corrected</b>																																																																
Flow 1	15	15	min																																																															
Shut-in 1	60	59	min																																																															
Flow 2	60	59	min																																																															
Shut-in 2	369	347	min																																																															
Flow 3			min																																																															
Shut-in 3			min																																																															



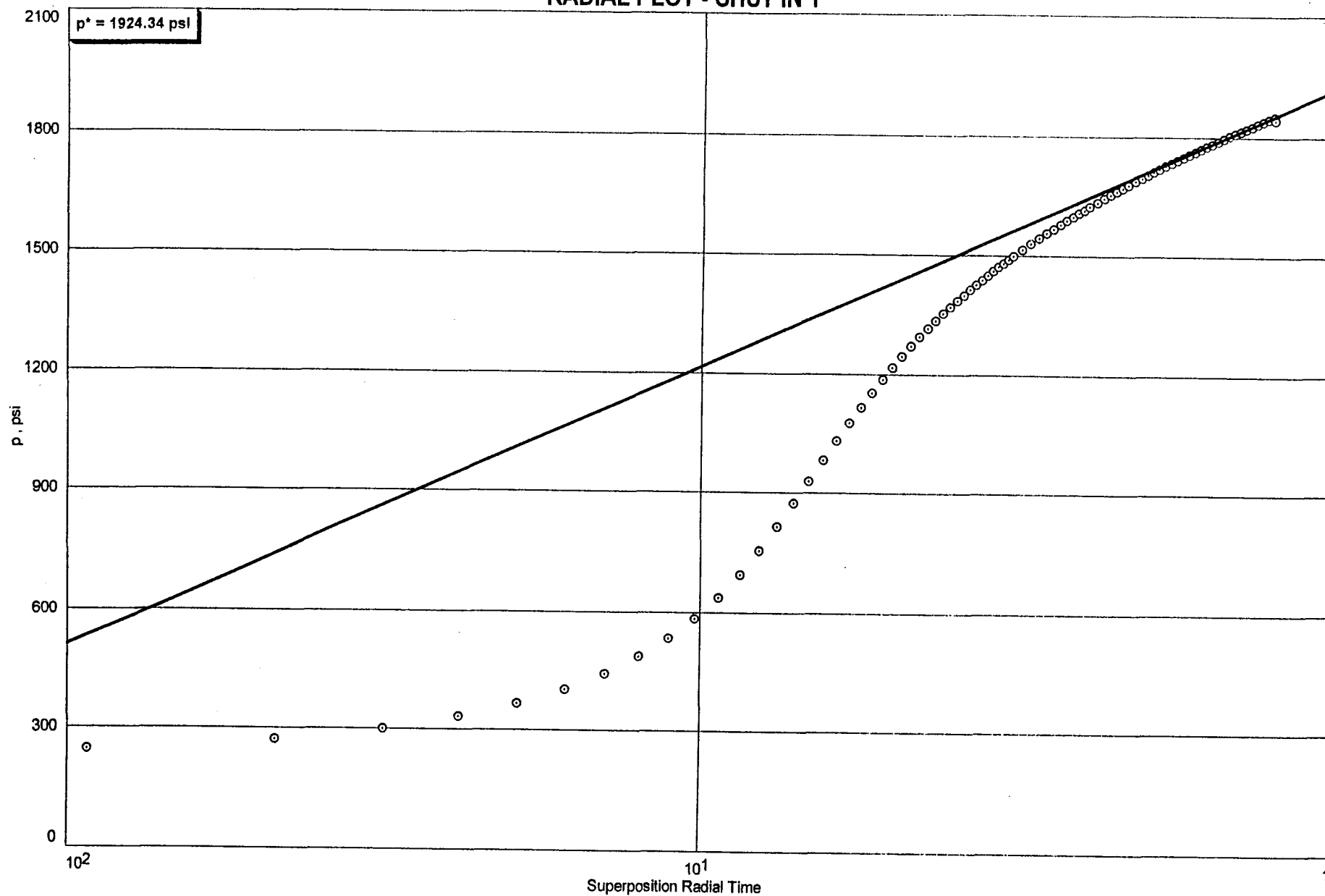
ST Oil Co.  
Marie Ogden State #1, Dst #1



CONFIDENTIAL

ST Oil Co.  
Marie Odgen State 1, Dst 1, Gauge 21059

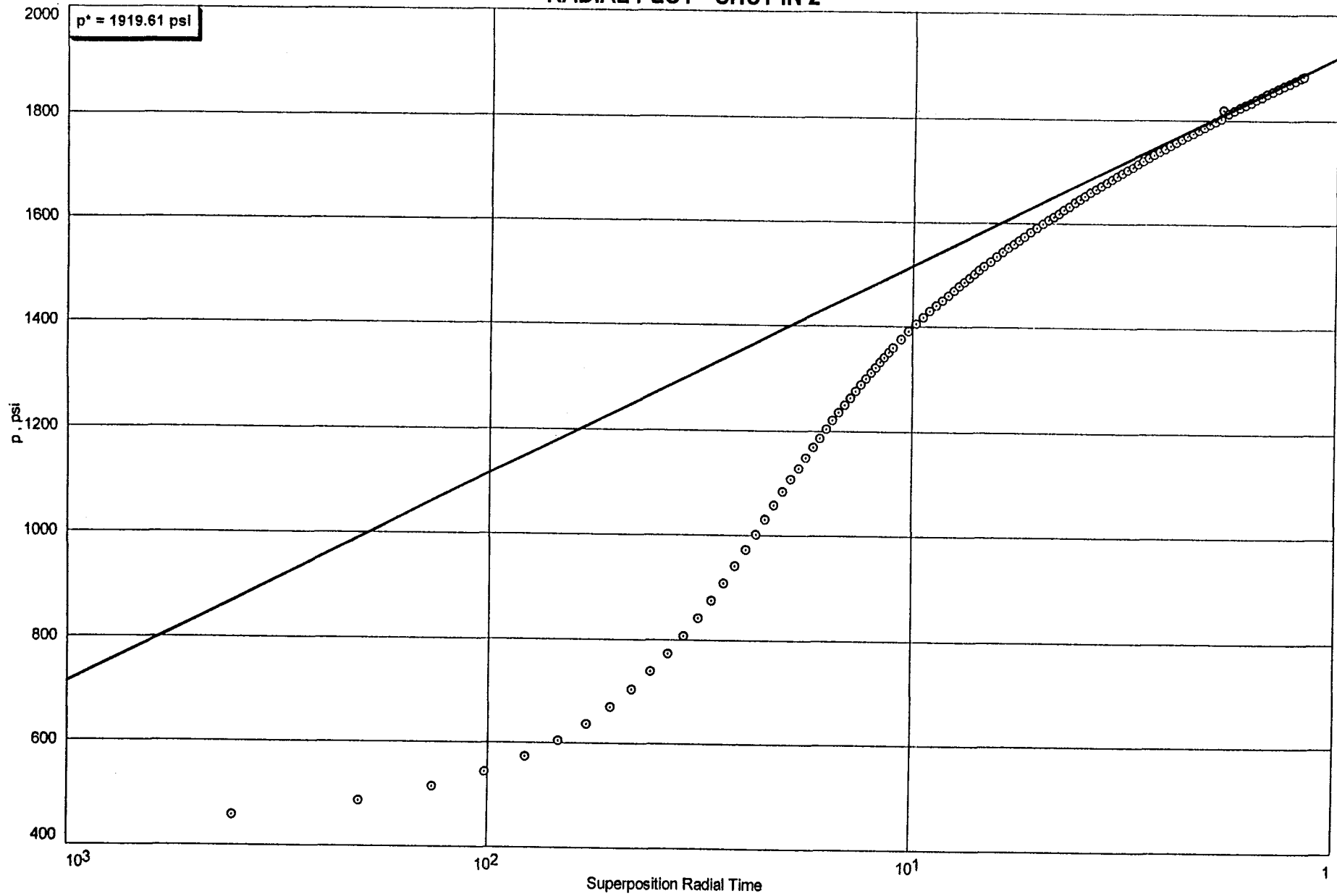
# RADIAL PLOT - SHUT IN 1



CONFIDENTIAL

ST Oil Co.  
Marie Odgen State 1, Dst 1, Gauge 21059

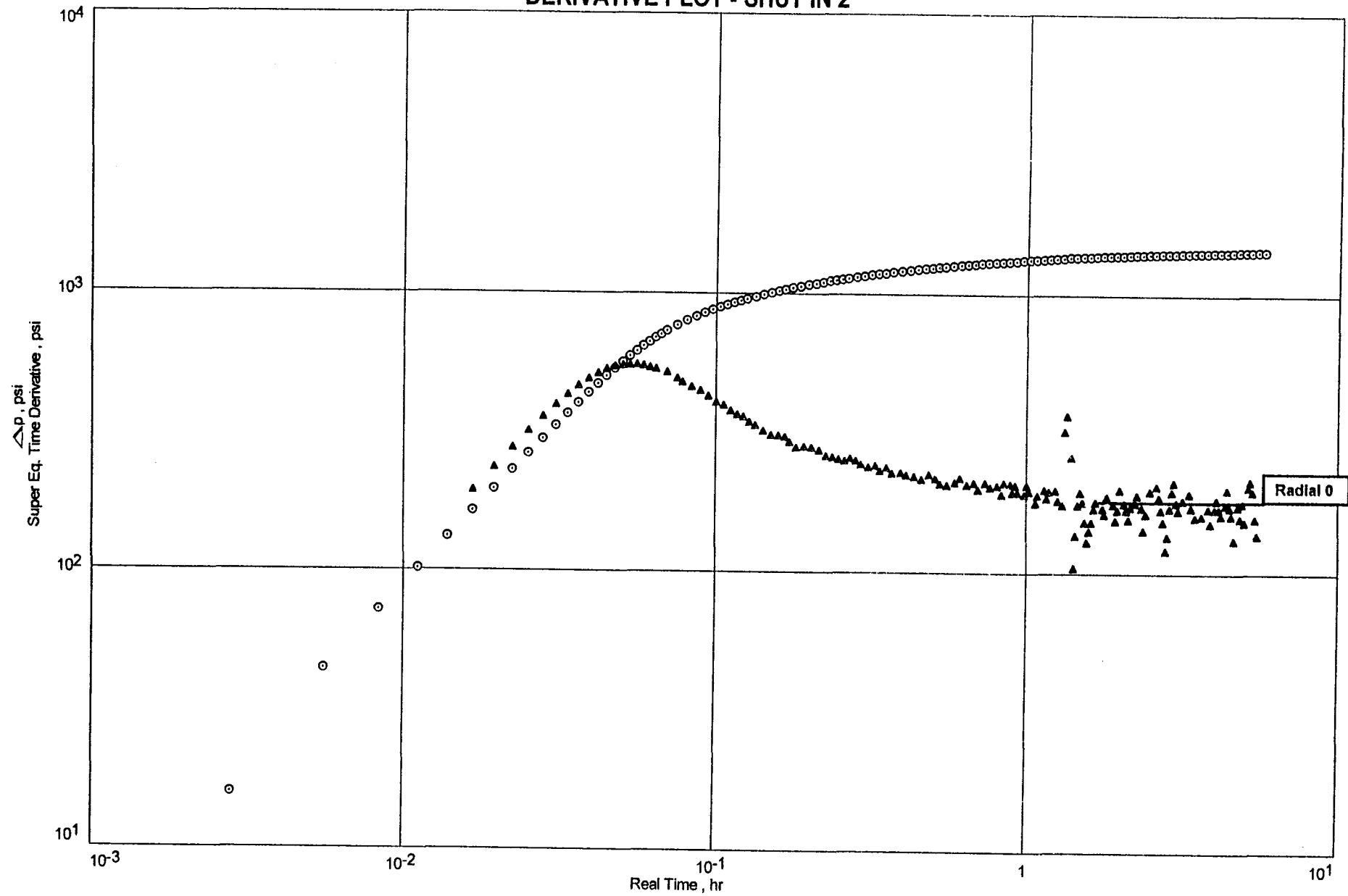
# RADIAL PLOT - SHUT IN 2



CONFIDENTIAL

ST Oil Co.  
Marie Odgen State 1, Dst 1, Gauge 21059

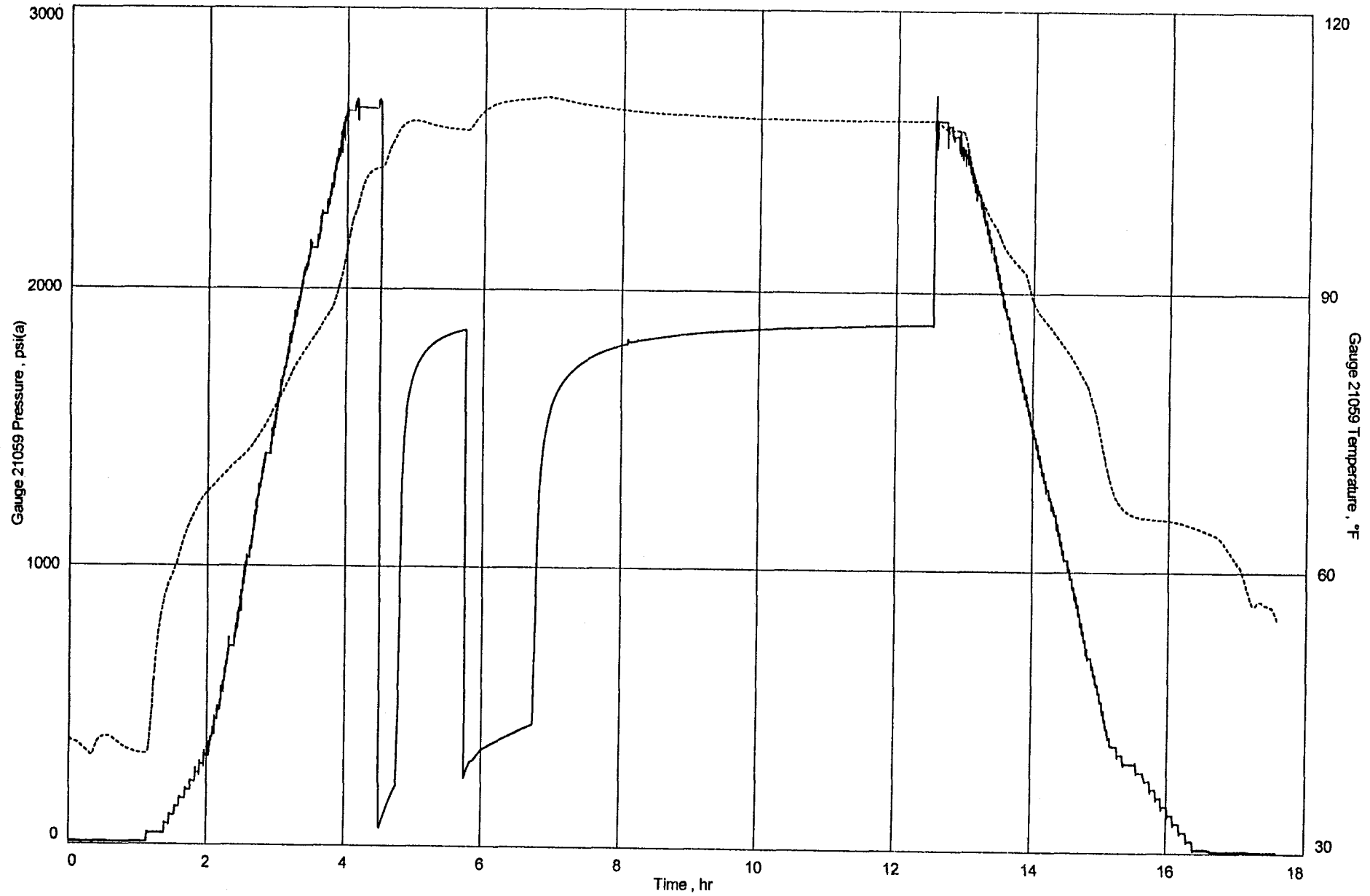
# DERIVATIVE PLOT - SHUT IN 2





CONFIDENTIAL

ST Oil Co.  
Marie Ogden State 1, Dst 1



TOOL SCHEMATIC	TOOL DESCRIPTION	O.D.	I.D.	LENGTH	DEPTH
	SURFACE FLOWHEAD				
	DRILL PIPE TO SURFACE	4.50	3.83	4648.22	4648.22
	DRILL COLLARS	6.25	2.25	552.50	5200.72
	REVERSING SUB	6.25	2.25	1.50	5202.22
	DRILL COLLARS	6.25	2.25	62.50	5264.72
	CROSSOVER SUB	6.25	2.25	1.00	5265.72
	ROTATING SHUT-IN TOOL	5.00	0.75	11.75	5277.47
	HYDRAULIC TOOL	5.00	1.17	4.95	5282.42
	INSIDE RECORDER	5.00	0.80	5.00	5287.42
	HYDRAULIC JARS	4.75	2.38	8.09	5295.51
	SAFETY JOINT	4.75	1.50	1.80	5297.31
	PACKER	8.00	1.50	3.90	5301.21
	PACKER	8.00	1.50	8.81	5310.02
	OUTSIDE RECORDERS	5.00	1.50	4.58	5314.60
	PERFORATION	5.00	3.00	15.00	5329.60
	PERFORATED SHOE	5.00	3.00	5.40	5335.00

ST Oil Co.  
Marie Ogden State #1

CONFIDENTIAL

## DISTRIBUTION OF FINAL REPORTS

ST Oil Co. [5 + Disk]  
1801 Broadway, Ste 600  
Denver CO 80202

CONFIDENTIAL



## CORE LABORATORIES

538 Olathe St, Suite F Aurora, Colorado 80011  
Telephone: 720.532.2666 Fax: 720.532.2665

# *Core Analysis Report*

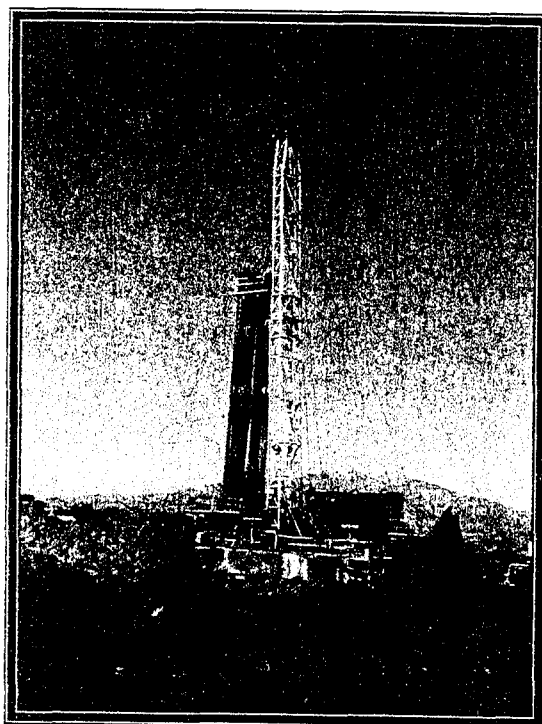
*For*

## *ST Oil Company*

#1 Marie Ogden State

Sec. 22 T31S R23E

San Juan County, Utah





ST Oil Company  
 #1 Marie Ogden State  
 Sec. 22 T31S R23E  
 San Juan County, Utah

Job:  
 Date:

22042  
 03-Jan-2003

Reference Number	Depth (ft)	Permeability		Helium Porosity (%)	Grain Density (g/cc)	Sample Description
		Air (md)	Klink (md)			
<u>Core No. 1 Upper Ismay Fm. 5110.0 - 5170.0 Recovered 60.0/60.0</u>						
No Analysis Requested						
<u>Core No. 2 Upper Ismay Fm. 5170.0 - 5230.0 Recovered 60.0/60.0</u>						
1	5174.3	0.001	<0.001	1.0	2.72	Ls, shy, brn, vfg, dns
2	5175.6	0.097	0.055	10.4	2.78	Ls, shy, brn, vfg, dns, anhy nod
3	5176.5	0.131	0.077	10.0	2.82	Ls, shy, brn, vfg, dns, anhy nod
4	5177.6	<0.001	<0.001	1.5	2.78	Ls, shy, brn, vfg, dns, alg, fract
5	5178.6	0.004	0.001	1.5	2.76	Ls, xln, lt brn, fgr, alg, fract
6	5179.5	0.002	<0.001	1.2	2.74	Ls, xln, lt gry to lt brn, fgr, alg, sli foss
7	5180.5	0.006	0.002	1.9	2.79	Ls, xln, lt gry to lt brn, fgr, alg
8	5181.6	0.696	0.496	4.2	2.80	Ls, xln, sli vug, lt gry to lt brn, fgr, alg, sli foss
9	5182.5	0.216	0.137	6.7	2.79	Ls, xln, vug, lt gry to lt brn, fgr, alg, sli foss
10	5183.4	0.001	<0.001	1.0	2.76	Ls, xln, sli vug, lt gry to lt brn, fgr, alg, sli foss
11	5184.5	0.006	0.002	9.5	2.79	Ls, xln, sli vug, lt gry to lt brn, fgr, alg, sli foss
12	5185.4	0.858	0.650	14.9	2.77	Ls, xln, sli vug, lt gry to lt brn, fgr, alg, sli foss
13	5186.3	0.062	0.032	14.0	2.82	Ls, xln, lt gry to lt brn, fgr, alg, sli foss

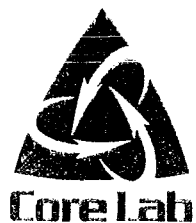


ST Oil Company  
 #1 Marie Ogden State  
 Sec. 22 T31S R23E  
 San Juan County, Utah

Job:  
 Date:

22042  
 03-Jan-2003

Reference Number	Depth (ft)	Permeability		Helium Porosity (%)	Grain Density (g/cc)	Sample Description
		Air (md)	Klink (md)			
<u>Core No. 3 Lower Ismay Fm. 5275.0 - 5335.0 Recovered 60.0/60.0</u>						
14	5303.6	0.001	<0.001	6.4	2.86	Ls, shy, brn, vfg, dns
15	5304.5	0.002	0.001	8.6	2.83	Ls, shy, brn, vfg, dns
16	5305.5	0.003	0.001	7.9	2.77	Ls, shy, brn, vfg, dns
17	5306.6	0.004	0.001	8.7	2.80	Ls, shy, brn, vfg, dns
18	5307.5	0.067	0.035	15.5	2.81	Ls, xln, brn, fgr, alg
19	5308.5	0.455	0.320	8.7	2.86	Ls, xln, sli vug, lt brn, fgr, alg, sli foss
20	5309.4	0.149	0.090	7.3	2.86	Ls, xln, sli vug, lt brn, fgr, alg, sli foss
21	5310.5	0.012	0.004	3.1	2.87	Ls, xln, sli vug, lt brn, fgr, alg, sli foss
22	5311.5	1.29	0.990	7.6	2.86	Ls, dol, xln, vug, lt brn, m to fgr, sli alg
23	5312.4	77.2	67.3	12.2	2.83	Ls, dol, xln, vug, lt brn, m to fgr, sli alg
24	5313.6	16.9	13.5	11.8	2.84	Ls, dol, xln, v vug, lt brn, m to fgr, sli alg
25	5314.5	0.645	0.474	6.3	2.82	Ls, dol, xln, vug, lt brn, m to fgr, alg
26	5315.6	6.52	5.13	7.6	2.81	Ls, dol, xln, vug, lt brn, m to fgr, alg
27	5316.5	4.65	3.55	5.7	2.82	Ls, dol, xln, v vug, lt brn, m to fgr, sli alg
28	5317.5	88.8	76.6	14.7	2.86	Ls, dol, xln, v vug, lt brn, m to fgr, sli alg
29	5318.5	1.39	1.03	9.4	2.83	Ls, dol xln, sli vug, lt brn, fgr, alg, sli foss

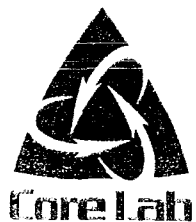


ST Oil Company  
#1 Marie Ogden State  
Sec. 22 T31S R23E  
San Juan County, Utah

Job:  
Date:

22042  
03-Jan-2003

Reference Number	Depth (ft)	Permeability		Helium Porosity (%)	Grain Density (g/cc)	Sample Description
		<i>Air</i> (md)	<i>Klink</i> (md)			
30	5319.5	1.36	1.00	7.7	2.85	Ls, dol xln, sli vug, lt brn, fgr, sli alg, sli foss
31	5320.5	0.008	0.003	7.3	2.82	Ls, xln, lt brn, fgr, sli alg, sli foss
32	5321.4	0.003	0.001	6.0	2.82	Ls, xln, lt brn, fgr, sli alg, sli foss
33	5322.5	0.275	0.180	1.5	2.78	Sh, calc, dk brn, vfgr, dns
34	5323.3	0.569	0.411	0.5	2.66	Sh, calc, dk brn, vfgr, dns, fract

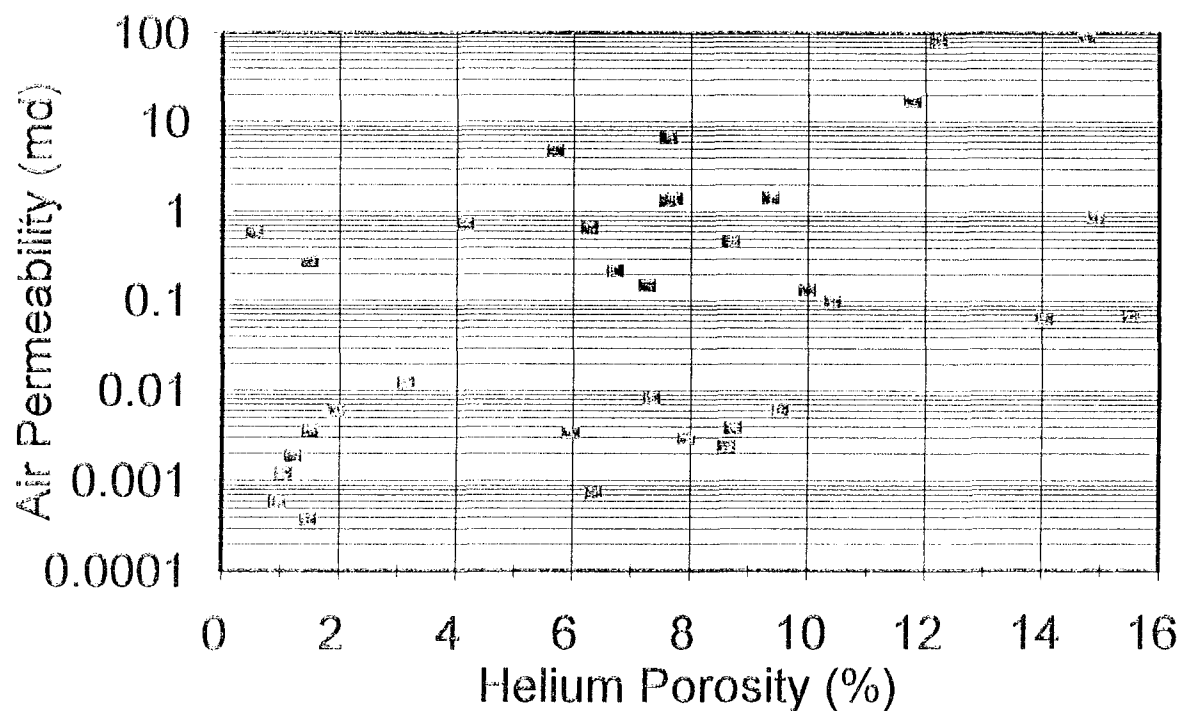


ST Oil Company  
#1 Marie Ogden State  
Sec. 22 T31S R23E  
San Juan County, Utah

Job:  
Date:

22042  
03-Jan-2003

### *Air Permeability vs Helium Porosity*





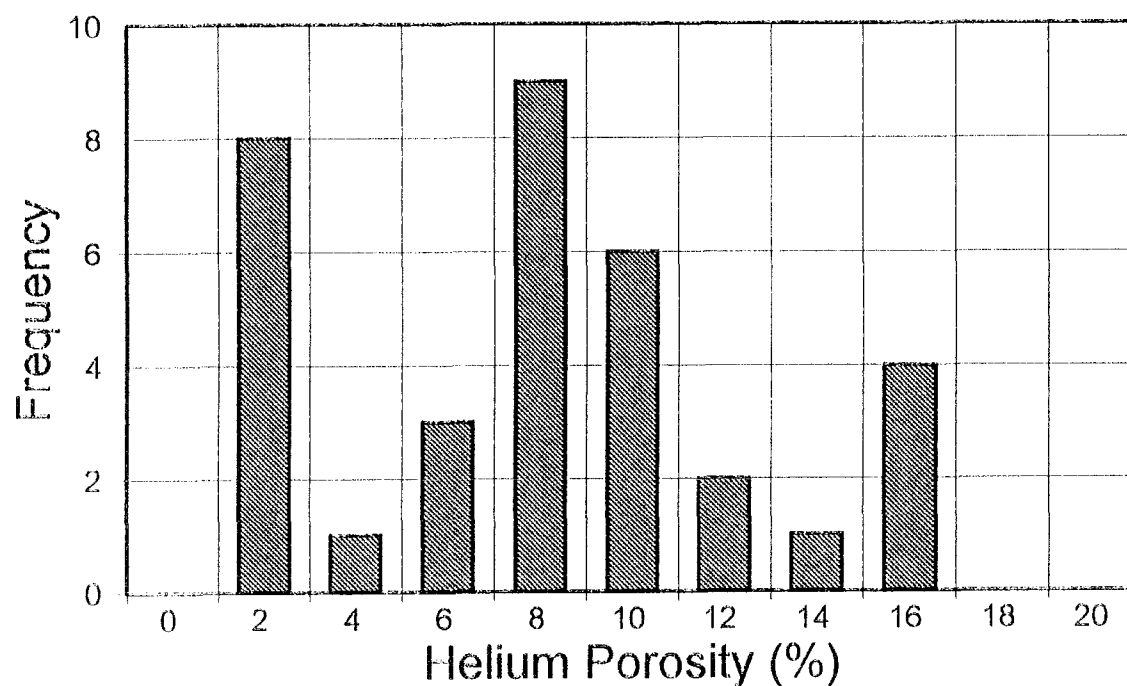


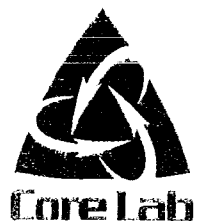
ST Oil Company  
#1 Marie Ogden State  
Sec. 22 T31S R23E  
San Juan County, Utah

Job:  
Date:

22042  
03-Jan-2003

### *Helium Porosity Frequency Distribution*



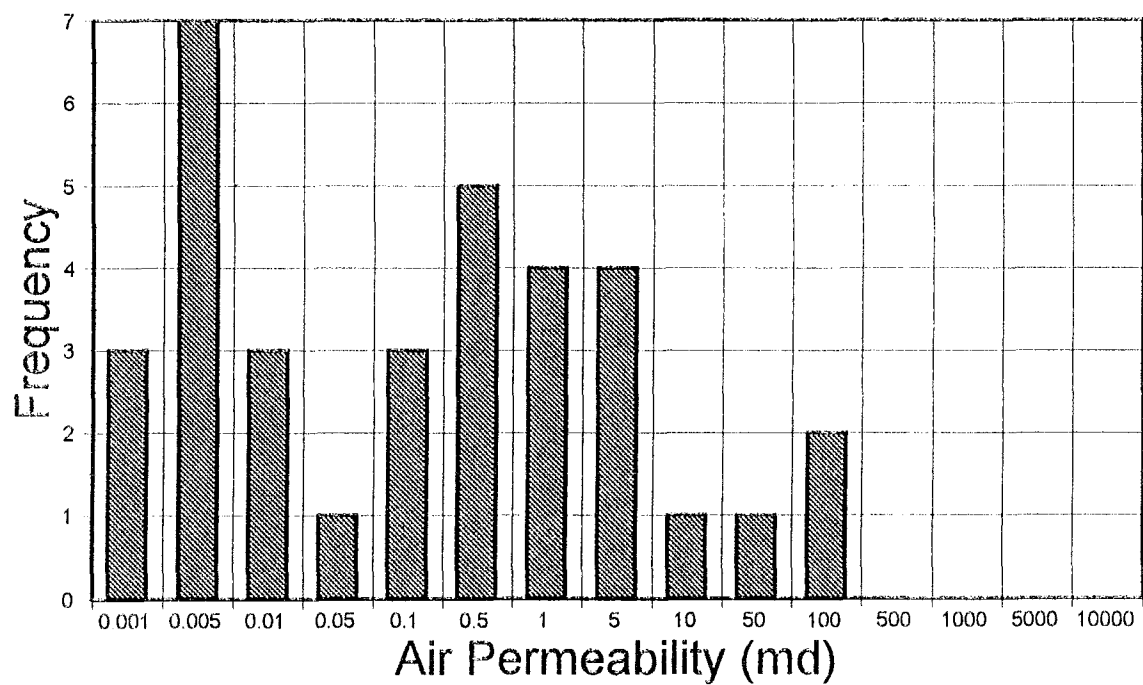


ST Oil Company  
#1 Marie Ogden State  
Sec. 22 T31S R23E  
San Juan County, Utah

Job:  
Date:

22042  
03-Jan-2003

### *Air Permeability Frequency Distribution*



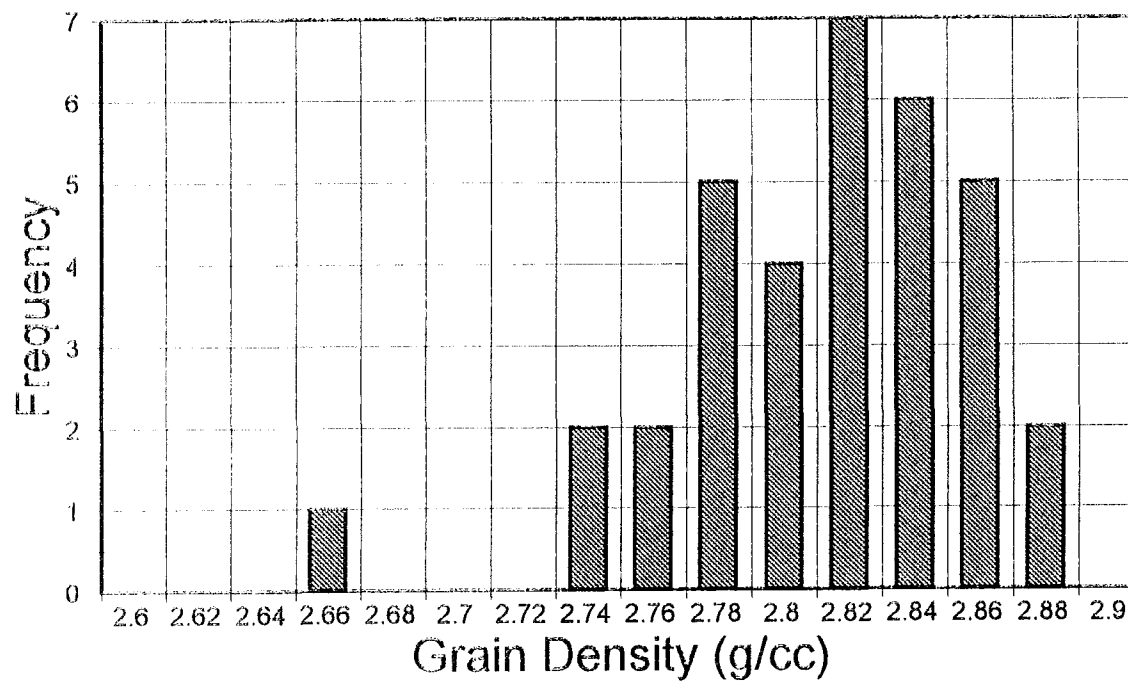


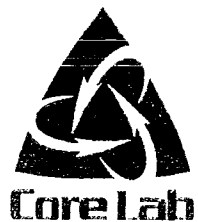
ST Oil Company  
#1 Marie Ogden State  
Sec. 22 T31S R23E  
San Juan County, Utah

Job:  
Date:

22042  
03-Jan-2003

### *Grain Density Frequency Distribution*





ST Oil Company  
#1 Marie Ogden State  
Sec. 22 T31S R23E  
San Juan County, Utah

Job: 22042  
Date: 03-Jan-2003

Zone	Permeability (md)*			Porosity (%)**		
	Median	Arith. Mean	Geom. Mean	Median	Arith. Mean	Geom. Mean
Zone1	0.114	5.953	0.083	7.481	7.136	5.294

\* Values above 0.00 md

\*\* Values above 0.00 %



ST Oil Company  
#1 Marie Ogden State  
Sec. 22 T31S R23E  
San Juan County, Utah

Job:  
Date:

22042  
03-Jan-2003

Zone1 Air Permeability Regression

Regression Output:

Constant	-2.294518
Std Err of Y Est	1.319971
R Squared	0.245257
No. of Observations	34.000000
Degrees of Freedom	32.000000

X Coefficient(s)	0.169777
Std Err of Coef.	0.052649

Zone1 Klinkenberg Permeability Regression

Regression Output:

Constant	-2.887019
Std Err of Y Est	1.549043
R Squared	0.248615
No. of Observations	34.000000
Degrees of Freedom	32.000000

X Coefficient(s)	0.201048
Std Err of Coef.	0.061786

Company : ST Oil Company

Well : #1 Marie Ogden State

Location : Sec. 22 T31S R23E

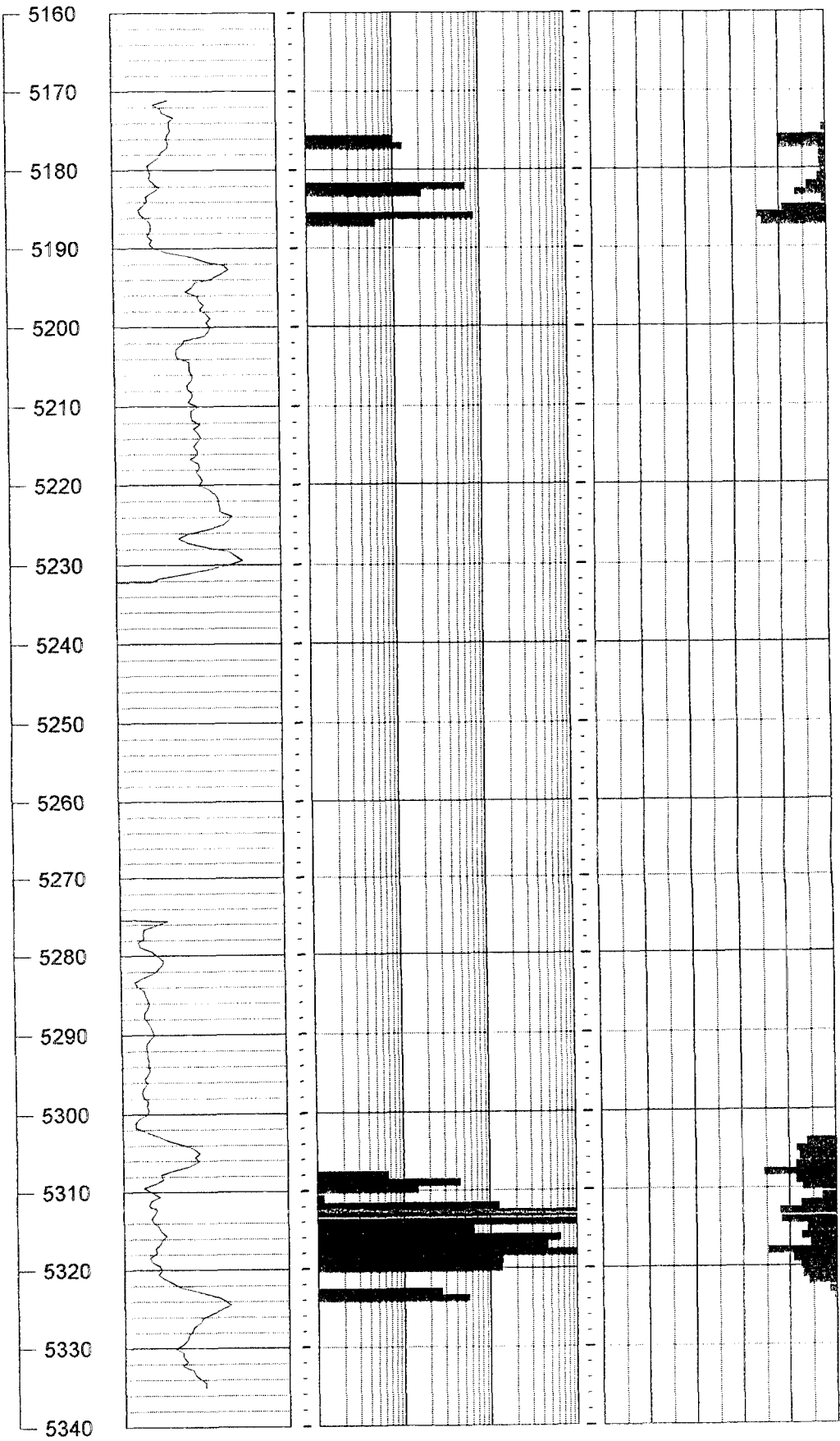
County, State: San Juan County, Utah



Project: 22042

Date: 30-Dec-02

Core Depth (ft)	Core Gamma	Permeability to Nitrogen (md)				Helium Porosity (%)
		0.001	0.1	10.0	50.0	



# GEOLOGIST'S WELL SITE REPORT

FOR THE

ST OIL COMPANY

Marie Ogden #1 State (senw Sec 22-T31S-R23E)  
SAN JUAN CO., UTAH

PARADOX BASIN

To: ST Oil Company  
1801 Broadway, Suite 600  
Denver, Colorado 80202  
[rferris@trinitymgt.com](mailto:rferris@trinitymgt.com)  
[subtler@trinitymgt.com](mailto:subtler@trinitymgt.com)  
[JOJEGRE@aol.com](mailto:JOJEGRE@aol.com)  
[rtiddensshorco@att.net](mailto:rtiddensshorco@att.net)

December 14, 2002  
CONFIDENTIAL

By: Gene M. Stevenson  
CPGS #06232  
(435) 672-2277  
[gstevenson1@citlink.net](mailto:gstevenson1@citlink.net)

## GEOLOGIST'S WELL SITE REPORT

### ST OIL COMPANY

Marie Ogden #1 State (senw Sec 22-T31S-R23E)  
SAN JUAN CO., UTAH

#### WELL SUMMARY DATA

OPERATOR: ST Oil Company  
ADDRESS: 1801 Broadway, Suite 600, Denver, CO 80202  
MAIN OFFICE NUMBER: 303-296-1908 FAX: 303-296-0329  
WELL NAME: Marie Ogden #1 State  
LOCATION: (senw) 1750 FWL, 1820 FNL, Sec 22-T31S-R23E, San Juan Co., Utah  
FIELD: Wildcat  
API NUMBER: 43-037-31825  
ELEVATION: K.B. 6,510 ft; D.F. 6,509 ft; G.L. 6,498 ft  
SPUD DATE: November 27, 2002  
TD DATE: December 11, 2002  
COMPLETION DATE: December 12, 2002  
TOTAL DEPTH: Drillers TD: 5,430 ft; Logger TD: 5386 ft  
STATUS: P & A  
DRILLING ENGINEER: Randy Shelton (435) 459-1027  
DRILLING COMPANY: Aztec Well Service, Rig #289  
P.O. Box 100, Aztec, NM 87410 (505) 334-6191  
TOOL PUSHER(S): Walt Floyd (505) 320-9579  
MUDLOGGER: Geoff Bousum, PASON Systems; (435) 790-0678 (cell); (720) 880-2000  
WELLSITE GEOLOGIST: Gene M. Stevenson, Bluff, UT (435) 672-2277  
DRILLING MUD COMPANY: Anchor Drilling Fluids, Thermopolis, WY 82443 (303) 892-5610  
MUD ENGINEER: John Nitschke (307) 350-8458  
DRILLING FLUID(S): Fresh Water and Polymer gel.  
SURFACE CASING: 9-5/8" set to 1,345 ft (36# J/K-55 STC)  
INTERMEDIATE CASING: None  
BOTTOM HOLE DIAMETER: 7-7/8"  
CUTTINGS SAMPLE INTERVAL(S): 30 ft intervals from 1350 ft to 4600 ft & 10 ft intervals to TD;  
PASON mudlogger on @ 2800 ft.  
CORE INTERVALS: Core #1: 5110 - 5170 ft; Core #2: 5170 - 5230 ft; Core #3: 5275 - 5335 ft  
Upper Ismay, Hovenweep Shale, Lower Ismay & upper Gothic Shale  
CORE COMPANY: Baker Hughes Inteq (307) 472-0001; Roy Ross-Core Hand  
DST COMPANY: Baker Hughes, P.O. Box 1828, Hobbs, NM 88241; Mike Fraley-Tester  
DST INTERVALS: 5310 - 5335 ft (Lower Ismay porosity zone)  
PIPE FISH COMPANY: Weatherford Fishing & Cutting; Dicky Nuttall, Farmington, NM  
WIRELINE LOGGING COMPANY: Schlumberger, Farmington, NM (505) 325-5006 (office)  
ENGINEER: Konark Singh



**LOGGING SUITE AND INTERVALS WITNESSED:**

Platform Express f/ TD to surface casing: Array Induction-SP/GR  
Compensated Neutron-Litho Density-GR  
BHC Sonic Log-GR f/ TD to surface

**DEVIATION SURVEYS**

Depth:                      Degree deviation:

197 ft	0.75°
659 ft	1.25°
1131 ft	1.00°
1345 ft	1.25°
1622 ft	0.75°
2062 ft	0.75°
2560 ft	1.00°
3052 ft	1.00°
3550 ft	1.00°
4039 ft	1.00°
4285 ft	0.50°
4722 ft	1.00°
5235 ft	0.50°

**BIT RECORD**

Bit Number	Size	Type	In	Out	Hours
Run 1	17-1/2"	Tooth	0	89'	6.25 hrs
Run 2	12-1/4"	HTC BH70A	89'	1345'	17.75 hrs
Run 3	7-7/8"	HTC EP4975	1345'	4285'	50.75 hrs
Run 4	7-7/8"	Reed HP53	4285'	5110'	43.25 hrs
Run 5	7-22/32" (core)	HTC ARC325	5110'	5170'	3.50 hrs
Run 5A	7-22/32" (core)	RR #5	5170'	5230'	2.75 hrs
Run 6	7-7/8"	Veral ETD34	5230'	5275'	3.75 hrs
Run 7	7-22/32" (core)	RR #5	5275'	5335'	3.50 hrs
Run 8	7-7/8"	RR #6	5335'	5349'	0.50 hrs
Run 9	7-7/8"	Veral EDT34	5349'	5430'	4.0 hrs

**CASING PROGRAM**

20" hole size to 89 ft	13-3/8" Galvanized
12-1/4" 89 – 1345 ft	9-5/8" 36# J or K-55
7-7/8" 0 – 5530 ft	5-1/2" 15.5# K-55 (NOT RUN/ P & A)

## DRILLING DIARY

Wednesday	November 27, 2002; Spud and set conductor csg @ 89' and cmted in
Thursday	November 28, 2002; Drld out w/ 12-1/4" to 1345' and begin setting 9-5/8" surf csg.
Friday	November 29, 2002; finish cmtg surf csg
Saturday	November 30, 2002; test csg.
Sunday	December 01, 2002; rig up BOPs.
Monday	December 02, 2002; 1595' drlg 7-7/8" in Chinle/Moenkopi redbeds; mudlogger on loc @ 20:00 hrs, begin logging. Begin full time wellsite geology.
Tuesday	December 03, 2002; midnight depth: 3052' drlg 7-7/8" in Permian Cutler redbeds
Wednesday	December 04, 2002; 05:00 depth: 4215' drlg 7-7/8" in Penn Honaker Trail Ls. ss & sh
Thursday	December 05, 2002; 05:00 depth 4657' drlg 7-7/8" in Penn Honaker Trail Ls. ss & sh
Friday	December 06, 2002; 05:00 depth 5035' drlg 7-7/8" in lwr HT; TOO H for Upr Is core #1 @ 17:00; TIH w/core bbl, cut 60' core in 2.75 hrs; TOO H w/core #1.
Saturday	December 07, 2002; 05:00 depth 5170' lay down core #1 @ 06:00; TIH for Upr Is core #2; cut 60' core in 2.25 hrs, TOO H w/core #2; TIH w/bit #6 and drl to next core pt. in Lwr Is
Sunday	December 08, 2002; 05:00 depth 5276'; TIH for core #3 in Lwr Is; TOO H w/core #3, TIH w/test tools for DST #1 5310-5335; DST IO w/strong blo @ 23:20 hrs
Monday	December 09, 2002; 05:00 depth 5335'; completed DST & pull test tool, rec 813' SW, no oil; TIH w/bit #6 and resume drlg @ 17:30; Drld 14' and got stuck in hole when making conn; Worked pipe for 1.5 hrs, over-pull caused pipe to part; Re-string kinked drill line and call Weatherford for fishing job.
Tuesday	December 10, 2002; 05:00 depth 5349'; TOO H w/fish, lay down bent/broken pipe; inspect drill collars; Mudlogger released
Wednesday	December 11, 2002; 05:00 TIH, rabbit drill pipe; resume drlg; reached TD 5430 @ 15:15 hr; circ and short trip; TOO H; Schlumberger Loggers on Loc @ 20:30.
Thursday	December 12, 2002; TD 5430'; Loggers finish @ 08:30; plugging well instructed by operator; Cement on loc, Halliburton plugged well
Friday	December 13, 2002; TD 5430'; Aztec Rig 289 released; Compile geol rept data
Saturday	December 14, 2002; Complete Wellsite Geological Report and e-mail rept to operator

**TABLE 1**  
**Pre-spud Geological Well Prognosis**

For the Marie Ogden #1 well, senw Sec 22-T31S-R23E; San Juan County, Utah  
Surveyed G.L. = 6498' estimated K.B. = 6510' (all Subsea values based on this KB value)

<u>Geologic tops</u>	<u>Drlg Depth (Structure tops)</u>	<u>Thickness</u>	<u>Description</u>
Morrison Fm.	Surface		
Entrada Ss	50'	+6460'	375'
Navajo Ss	425'	+6085'	420'
Kayenta Fm.	845'	+5665'	210'
Wingate Ss	1055'	+5455'	290'
Chinle Fm.	1345'	+5165'	455'
Shinarump Cgl	1800'	+4710'	60'
Moenkopi Fm.	1860'	+4650'	265'
Cutler Group	2125'	+4385'	1600'
Porous Ss	2415'	+4095'	100'
Honaker Trail Fm.	3725'	+2785'	1340'
La Sal Shale	4515'	+1995'	335'
Hatch cycle	4850'	+1660'	215'
Upper Ismay	5065'	+1445'	125'
UI T/anhydrite	5110'	+1400'	15'
UI bs/anhydrite	5125'	+1385'	
Hovenweep Shale	5190'	+1320'	34'
Lower Ismay	5224'	+1286'	100'
LIs T/anhydrite	5239'	+1271'	
LIs bs/anhydrite	5279'	+1231'	40'
Gothic Shale	5324'	+1186'	50'
Desert Creek	5374'	+1136'	NDE
LDC salt	5434'	+1076'	----
TD	5440'	+1070'	----
BHT	115° F		

**TABLE 2: WELL LOG FORMATION TOPS**  
**For**  
**ST OIL #1 Marie Ogden State**

<u>Geologic tops</u>	<u>Drilling Depth</u>	<u>Structural tops KB. 6510 ft</u>
Spud well in Tidwell Mbr of Morrison Fm		
Entrada SS	43 ft	+6467 ft
Navajo SS	434 ft	+6076 ft
Kayenta Fm	844 ft	+5666 ft
Wingate SS	1026 ft	+5484 ft
Casing set to	1345 ft	+5165 ft
<u>Triassic</u> - Chinle Fm	1352 ft	+5158 ft
Shinarump Ss	1730 ft	+4780 ft
Moenkopi Fm	1808 ft	+4702 ft
<u>Permian</u> - Cutler Group	2118 ft	+4392 ft
<u>Top Pennsylvanian</u>		
Honaker Trail Fm	3730 ft	+2780 ft
La Sal Shale	4544 ft	+1966 ft
Hatch zone	4850 ft	+1660 ft
Paradox Shale	5051 ft	+1459 ft
<u>Top/Paradox Fm</u>		
Upper Ismay	5094 ft	+1416 ft
Top/anyh	5144 ft	+1366 ft
Base/anyh	5163 ft	+1347 ft
Hovenweep Sh	5190 ft	+1320 ft
Lower Ismay	5224 ft	+1286 ft
Top/LIs anhy	5248 ft	+1262 ft
Base/LIs anhy	5304 ft	+1206 ft
Gothic Sh	5324 ft	+1186 ft
Desert Creek	5372 ft	+1138 ft
Top/UDC anhy	5386 ft	+1124 ft
Base/UDC anhy	5400 ft	+1110 ft
Top/Pdx Salt	5428 ft	+1082 ft
TD	5430 ft	+1080 ft
BHT (logger) 100° F		
BHT (tester) 110° F		
-----		

## LOG ADJUSTED LITHOLOGIC DESCRIPTIONS from 1352' to TD

### Top of Triassic: The Chinle Fm.

**Chinle Fm:** 1352 – 1808 ft; The Chinle Formation was named by Gregory (1917) for exposures along Chinle Valley of northeastern Arizona about 120 miles south of the drill site. The Chinle Fm covers a broad portion of northeastern Arizona and southeastern Utah, and is subdivided into several formal members. Locally, the Chinle is only divided into two parts; the uppermost *undifferentiated* interval and the basal *Shinarump Member*. The Shinarump Member was originally named the Shinarump Conglomerate (Gilbert, 1875) but later mapping by Stewart (1957) assigned this sandstone unit to member status of the Chinle Fm.

The undifferentiated interval consists of intercalated thin beds of brick-red shales and claystones with salmon-pink to brownish red fine-grained sandstones and siltstones. This interval accounts for much of the uphole sloughing (see caliper log). Calcareous argillaceous stringers occur below 1580 ft. Red to purple shales immediately overlie the Shinarump sandstone (1730 – 1808'), which is composed of purple to red and brown fine-grained quartzose sands that are poorly indurated. The Shinarump is a fluvial siliciclastic unit and is better developed to the west, north and south of the drill site. This sandstone is a major source of uranium ore in the region. In outcrop, its base is disconformable with the underlying Moenkopi Fm, and commonly exhibits scour and erosion features (i.e., basal conglomerates).

**Moenkopi Fm:** 1808 – 2118 ft; The Moenkopi Fm was named by Ward (1901) for a sequence of rocks that lay between the Permian Kaibab Ls and the overlying Shinarump Sandstone. Baker and Reeside (1929) extended the formation into the drill site area and beyond. Throughout this area, and extending southward to Monument Valley, Arizona, the Moenkopi disconformably overlies the Permian Cutler Group. The Moenkopi consists of slightly browner redbeds comprised of fine-grained siltstone and sandstone, and micaceous shales.

### Top of Permian: The Cutler Group 2118 – 3730 ft.

The Cutler section was first defined and named as a formation by Cross and Howe (1905) for exposures in the San Juan Mountains in southwestern Colorado. Later, in the Monument Valley area, Baker and Reeside (1929) identified five members of the Cutler and named them in ascending order as: Halgaito Tongue, Cedar Mesa Sandstone Member, Organ Rock Tongue, De Chelly Sandstone Member, and Hoskinnini Tongue. Stewart (1959) later assigned the Hoskinnini Tongue to the overlying Triassic Moenkopi Fm. Wengerd and Matheny (1958) raised the Cutler to group status and the members to formation status.

In the Marie Ogden #1 wellsite, the Permian section is an undifferentiated complex of interbedded red to maroon shales and hematite-stained, fine- to coarse-grained sandstones. Immediately to the west, in the Needles District of Canyonlands National Park, the aforementioned members begin to become recognizable units where redbeds of the Organ Rock Shale are intercalated with white sandstones of the Cedar Mesa Sandstone.

### Top of Pennsylvanian: The Hermosa Group 3730 – TD 5430 ft.

The name "Hermosa Formation" was first applied by Cross and Spencer (1899) to Pennsylvanian rocks in the San Juan Mountains of southwest Colorado. Later, Baker, et al (1927) correlated the Hermosa to the limestone canyon walls of the San Juan River in the Mexican Hat area. Wengerd and Matheny (1958) raised the status of this interval to group status, and subdivided the group into three formations, in ascending order: the Pinkerton Trail Fm, the Paradox Fm, and the Honaker Trail Fm. Baars, et al (1967) proposed the usage of the chronostratigraphic term "Four Corners Stage" and subdivided the Paradox Fm into four biostratigraphic "substages" in descending order; the Ismay substage, the Desert Creek substage, the Akah substage, and the Barker Creek substage. The term "Alkali Gulch" was informally proposed for basal Paradox evaporites and restricted carbonates in southwestern Colorado by Peterson and Ohlen (1963). Hite and Buckner (1981) informally correlated Paradox salt cycles to the Four Corners substages, and Baars and Stevenson (1982) formally dropped the usage of "Four Corners Stage" and upgraded the substages, in descending order as; the Upper Ismay, Lower Ismay, Desert Creek and Barker Creek stages.

Present-day petroleum workers have modified these formal units somewhat, and added several "informal" names to add to the confusion. As best I can decipher, and try to use, this is the vertical succession, in descending order, with time-equivalent salt cycle noted in parentheses:

- Honaker Trail Fm = top of Pennsylvanian marine limestones and shales
- La Sal marker = lowermost cycle of Honaker Trail Fm
- Hatch zone = (salt cycle 1 of Paradox), yet still included in lower Honaker Trail Fm.
- Paradox Shale = 1<sup>st</sup> black "shale" separating Hatch from Upper Ismay Stage
- Paradox Formation = top of salt cycles except in small part of northeast Paradox basin
- Upper Ismay Stage = (salt cycle 2)
- Hovenweep Shale = 2<sup>nd</sup> black "shale" in Paradox sequence
- Lower Ismay Stage = (salt cycle 3)
- Gothic Shale = 3<sup>rd</sup> black "shale" in Paradox sequence
- Desert Creek Stage = (salt cycles 4 + 5)
- Chimney Rock Shale = 4<sup>th</sup> black "shale" in Paradox sequence
- Akah Stage = (salt cycles 6,7,8,9 and 10)
- Unnamed, or "D" Shale = 5<sup>th</sup> black "shale" in Paradox sequence
- Barker Creek Stage = (salt cycles 11 thru 19)
- Alkali Gulch "zone" = (salt cycles 20 thru 29, or more depending on author)
- Pinkerton Trail Fm = defined by first non-evaporite carbonate cycles

[Obviously, terminology needs some standardization for the Paradox Formation]

**Honaker Trail Fm:** 3730 – 5094 ft; The Honaker Trail Formation is the uppermost unit of the Hermosa Group and consists of cyclically alternating marine carbonates and siliciclastics that grade upward into more massive arkosic sandstones and siltstones derived from the emergent Ancestral Rockies to the east. This vertical and eastward thickening of arkosic clastics indicates the gradual withdrawal of the Paleozoic sea from the uplifting Paradox shelf. The type section for the formation is located less than two miles west of the Goosenecks overlook at Honaker Trail, and was upgraded to formation status by Wengerd and Matheny (1958; Stevenson, 2000). At Goosenecks overlook, the massive limestone rim rock defines the lithostratigraphic boundary between the overlying Halgaito redbeds (Permian) and the underlying Honaker Trail Formation (Pennsylvanian). Closer examination reveals that several layers of red siliciclastics are interbedded with the underlying carbonates, and that thin, discontinuous limestone beds extend upward into the Halgaito siltstones. This alternating pattern of gray ledge-forming limestone with softer, slope-forming redbeds is beautifully exposed on the west dipping flank of the nearby Raplee anticline, forming a prominent "zigzag" pattern (Stevenson, 2000, p.439, fig.9).

In the ST Oil Marie Ogden #1 State well, the Honaker Trail sequence gradually increases downhole in marine carbonates and gray-green shales as red beds diminish. The formation is approximately 300 ft thicker than seen in outcrop or in the Blanding subbasin and continues to thicken north and eastward into the Paradox salt anticline district and Uncompahgre front area. Lithologically, the unit also increases in siliciclastics as carbonate zones diminish. Locally, background gases gradually increase to top of Hatch zone. The first peloidal/skeletal lime mudstone/wackestone was noted at 4180-4200 ft, with increase in gray argillaceous shale and siltstone.

**La Sal Shale:** 4544 – 4578 ft; this is an informally named unit in the lower Honaker Trail Fm. This is a good reliable drilling marker horizon; consisting of the first occurrence of dark gray argillaceous, silty organic rich lime mudstone. This facies becomes progressively darker and richer in organics downhole. This facies is interpreted as moderate anoxic to anaerobic sediment deposited during rapid transgressions during initial flooding of marine incursions across the shallow Paradox shelf. Background gas increased from 10-20 units to 40 units. No visible porosity or hydrocarbon shows.

**La Sal cycle:** 4578 – 4882 ft; this is an informally named unit in the lower Honaker Trail Fm. The top of this unit consists of a calcarenite to siliciclastic sandstone cemented by calcite. Quartz grains are very fine to fine-grained, and well sorted. This facies is interpreted as shoreface sand where windblown siliciclastics are transported across the shelf during lowstands of sea level and subsequently reworked by shallow marine waters. The remainder of this cycle consists of light-gray to tan carbonate zones (10' - 15' thick) interbedded with 3' - 10' thick zones of dark carbonate "shales" and/or silty argillaceous shaly lime siltstones, indicating alternating conditions on the shelf from shallow marine (light-colored carbonates) to deeper water, and poorly oxygenated conditions brought on by sea level rise (dark-colored silty dolomitic mudstones). No visible porosity or hydrocarbon shows.

**Hatch cycle:** 4882 – 5051 ft; this is an informally named unit in the lower Honaker Trail Fm (or uppermost Paradox Fm), and is actually time-equivalent to the uppermost Paradox salt cycle (cycle 1 of Hite and Buckner, 1981) in the very northeastern most portion of the Paradox basin (northeast of Moab, UT). Here, the Hatch cycle consists of alternating parasequences of normal marine shelf carbonates and poorly oxygenated silty carbonate mudstones similar to those described above in the La Sal cycle. No visible porosity or hydrocarbon shows.

**Paradox Shale:** 5051 – 5094 ft; recognized as the top of Paradox Fm in the south-central portion of the greater Paradox basin. This interval is a very dark gray to black, organic-rich silty lime mudstone deposited during poorly oxygenated conditions due to rapid sea level rise, and marks the first significant “cycle-bounding shales” in the upper Paradox stages. Background gases increase from 20 units to 196 units. No visible porosity or hydrocarbon shows.

**Upper Ismay Stage:** 5094 – 5190 ft; (see Figure 1). Across the south-central shelf of the Paradox basin, the Upper Ismay is a cyclically deposited 4th order sequence of low to moderate energy, open marine bioclastic platform carbonates that alternate with black cherty argillaceous organic rich calcareous mudstones. It is further subdivided into four 5th-order sequences, or substages, in ascending order as follows: Substage I: 5190 – 5174 ft; Substage II: 5174 – 5163 ft; Substage III: 5163 – 5144 ft; & Substage IV: 5144 – 5094 ft. *[See core report for detailed descriptions]*

Substages I and II are normal marine carbonate platform facies with gray to brown skeletal (crinoidal to peloidal) mudstone to wackestone textures (5170.5-5177.5 ft) grading downward into brecciated incipient mound to mud-mound facies (5177.5-5184.0) with traces of bleeding oil *[See core report for detailed descriptions]*. Porosities are typically ineffective (biomoldic/ intraparticle). This interval is equivalent to the algal mound productive zone in the central Blanding subbasin play (Kiva field for example). However, this zone is considered non-productive here. Minor visible hydrocarbon shows and porosity were noted in whole core samples.

Substage III is a massive anhydrite (chickenwire-laminated) from 5144-5163 ft, and is typical of the capping anhydrite facies throughout the productive portion of the Blanding subbasin to the south.

Substage IV (from 5094 to 5144 ft) is a brown-gray dense silty to sandy lime mudstone interpreted as a basin-filling peritidal to restricted lagoonal facies. The characteristic “rabbit-ears” anhydrite caps this sequence.

**Hovenweep Shale:** 5190 – 5224 ft; Black laminated organic-rich calcareous mudstone (Figure 1) This “cycle-bounding shale” is the first recognized source rocks in this portion of the Paradox basin and thickens to the north and east of the well site. Shale gas reached 265 units, but no fluorescence was noted.

**Lower Ismay Stage:** 5224 – 5324 ft; (Figure 2); Across the southern shelf of the Paradox basin, the Lower Ismay is a cyclically deposited 4th order sequence of low to moderate energy open marine to restricted bioclastic platform carbonates that alternates with black argillaceous organic rich calcareous mudstones, and restricted lagoonal evaporites and silty dolomitic mudstones. It is further subdivided into four 5th-order sequences, or substages, in ascending order as follows: Substage I: 5320 – 5324 ft; Substage II: 5304 – 5320 ft; Substage III: 5248 – 5304 ft; & Substage IV: 5224 – 5248 ft.

Substage I is a dense non-porous, dark gray dolomitic mudstone. This zone is non-productive throughout most of the basin.

Substage II is a dolomitized algal mound facies and constitutes the primary objective in this well. *[See core report for detailed descriptions]* The upper 4 ft (from 5304 to 5308 ft) is a dolomudstone “drape” facies with minor oil staining or fluorescence. The interval from 5308 to 5320 ft exhibited small



CONFIDENTIAL

vugs and pin-point pores with blue-green oil staining in 50 to 80% of core with rapid to moderate streaming cut. Gas increased to 334 units.

Substage III is a massive thinly-laminated to disrupted-laminated anhydrite bed in this well and provides an excellent seal to substage II carbonate porosities when present.

Substage IV is a silty to argillaceous to anhydritic dolomite mudstone.

**Gothic Shale:** 5324 – 5372 ft; (**Figure 2**); This “cycle-bounding shale” is the second recognized source rock in this portion of the Paradox basin. This interval consists of black laminated dolomitic to calcareous, organic-rich mudstone. The Gothic shale is the primary petroleum source bed for upper Paradox objectives. Background gases increased to over 300 units across this interval.

**Desert Creek Stage:** 5372 – TD (5430'); Throughout the Paradox basin, the Desert Creek is a cyclically deposited 4th order sequence of low to high energy open marine bioclastic platform carbonates that alternate with black cherty argillaceous organic rich dolomudstones, and restricted lagoonal silty dolomudstones and evaporites. Here, the upper Desert Creek cycle 4 evaporite consists of a bed of massive anhydrite (5386-5400'), and the lower Desert Creek cycle 5 evaporite constitutes the top of the Paradox salt section. Top of salt was penetrated beneath a thin cycle 5 anhydrite at 5428 ft. The well bottomed in salt at 5430 ft.

## PRELIMINARY CORE DESCRIPTIONS

[NOTE: Detailed core descriptions, core photos, porosity & permeability data and thin section petrography will be compiled in a separate companion report.]

### CORE #1: 5110 – 5170 ft: Upper Ismay

Core #1 was cut higher in the section than planned, but drill bit wear and noticeable increase in bit shavings, combined with irregular rate of penetration was finally confounded by loss in pump pressure and a needed trip out of hole to find hole in drill pipe. Rather than go back in hole for a few tens of feet, I decided to go in with core run #1.

5110.0-5110.8 ft – black laminated lime mudstone; trace pyrite; large elongated bedding-parallel chert nodule @ 5110.5 ft.

5110.8-5144.0 ft – Calcareous brown-gray dense sandy to silty lime mudstone (Restricted Intermediate Platform facies). Small anhydrite blebs disseminated from 5127.4-5130.0 ft.

5144.0- 5163.0 ft – Anhydrite, white and mottled with thin laminae and blocky disruptive and brecciated bedding.

5163.0-5163.5 ft – mixed anhydrite and lime mudstone.

5163.5-5170.5 ft – non-skeletal dark gray argillaceous lime mudstone grades downward to skeletal wackestone (thin-shelled brachiopods, small crinoids; skeletal cap facies) in lower 3-4 ft with lowermost 18" consisting of a black laminated mudstone. No hydrocarbon fluorescence noted.

### CORE #2: 5170.5 – 5232.0 ft: Upper Ismay, Hovenweep Shale

Core #1 cored substantially faster than drill bit, so I elected to run core #2 immediately, as these next feet would be the Upper Ismay target (substage I-II carbonate mound or equivalent facies). Core #2 cored even faster than core #1.

5170.5-5177.5 ft – very dark gray lime mudstone to wackestone (crinoidal and brachiopod skeletal cap facies); stylolite @ 5174.8 ft.

5177.5-5184.0 ft – brecciated tight mound flank/"mud mound"; calcareous boundstone with scattered algal blades and brachiopods; intraclasts are angular and well cemented; with little to no visible porosity. Blue-green hydrocarbon fluorescence ranged from spotty in upper portion with 10-15% fluorescence in pin point porosity from 5179.5- 5182.3 ft.

5184.0-5191.5 ft – dark gray skeletal (thin-shelled brachiopods) mudstone/wackestone grading downward to non-skeletal mudstone; minor spotty fluorescence.

5191.5-5224.0 ft – Hovenweep Shale: black laminated lime mudstone; poker chip lamination; pin-point to spotty hydrocarbon fluorescence.

5224.0-5232.0 ft – Top of Lower Ismay: thin laminated medium-gray lime mudstone with wispy laminae; no visible porosity; rip-up lithoclasts; bedding parallel fluorescence up to 15% noted from 5227.7-5232.0 with sub-vertical fracture with fluorescence @ 5228.5 ft.

CONFIDENTIAL

**CORE #3: 5275.0 – 5335.0 ft: Lower Ismay, Gothic Shale**

5275.0-5303.0 – White to gray-white laminated anhydrite; restricted evaporite lagoon facies  
5303.0-5308.4 ft – Drape facies; dark gray dolomudstone  
5308.4-5310.0 – Dolomitic skeletal cap facies  
5310.0-5320.0 Dolomitic Algal Mound facies; strong hydrocarbon odor and live blue-green oil fluorescence from 5309-5321 ft; good pin point, intercrystalline, interparticle and small vuggy porosity; larger vugs filled with radial fibrous cement, and dead oil flecks up to 5%.  
5320.0-5323.0 ft – Tight dolomitic dark gray brown mudstone with trace fluorescence.  
5323.0-5335.0 – Gothic Shale: black laminated dolomitic to calcareous (downhole) mudstone; poker chip; good strong odor; no fluorescence. END OF CORE

**DRILL STEM TEST: 5310 – 5335 ft:**

Conventional Bottomhole Test was requested with bottom packer to be at 5301 ft. After test was run it was noticed that the tester had juxtaposed numbers and set bottom packer seat at 5310 ft in drape porosity zone but apparently didn't cause misrun (see charts). I do have some concern, as this zone does produce oil in several wells in the Blanding basin from intermound stacks in the Upper Ismay porosity zone (see Tincup and Kiva fields).

IHP: 2669#  
IOP: 15" 66#-216#  
ISIP: 60" 1852#  
FOP: 60" 247#-442#  
FSIP: 369" 1882#  
FHP: 2670#

Initial flow started with a strong blow on 1/8<sup>th</sup> choke; second flow opened with a weak blow on 1/8<sup>th</sup> choke and built to 8 oz. pressure at end of flow period. Pipe recovery was 40 ft of slightly gas cut mud and 773.5 ft of salt water (165,000 ppm chlorides).

## GEOLOGICAL SUMMARY

1. Preliminary observation of cored Upper Ismay "mound" facies confirms earlier petrographic investigation of nearby wildcats; the reservoir facies is calcareous and tight with minor oil shows and appears to be a secondary objective at best.
2. Preliminary observation of core and DST from Lower Ismay "mound" facies demonstrates live and dead oil shows, dolomitization as predicted, and resultant effective porosity with moveable fluids in the reservoir. Recovered water with salinities of 165,000+ suggests mostly formation recovery but I still suspect mixed filtrate dilution and question the location of lower packer seat on DST tool.
3. Oil that may be trapped in the reservoir lies in an up dip direction to the south, southwest or west; all of which lies outside the seismic grid area. The Lower Ismay porosity zone in this well is only 9 feet higher than that in the Major Martin well, with apparently less porosity and 3 feet thinner.
4. Upper Ismay and Lower Ismay targeted zones are "regional" when compared to wells in the area; and lead one to wonder what "amplitude anomalies" mean relative to porosity development and geophysical identification.

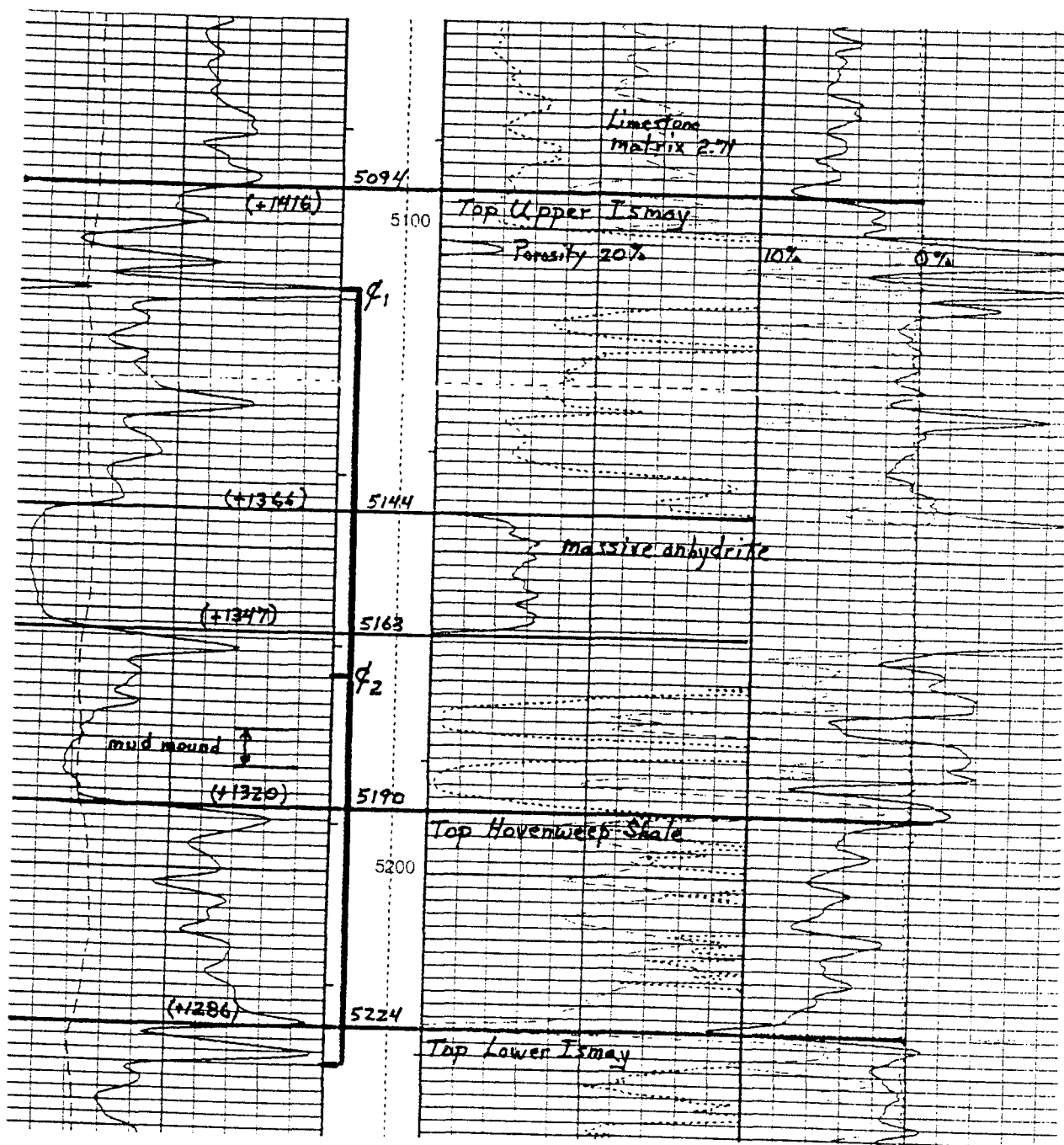


FIGURE 1: Neutron/Density Log of Upper Ismay zone in the ST Oil #1 Marie Ogden well showing tops and cored intervals.

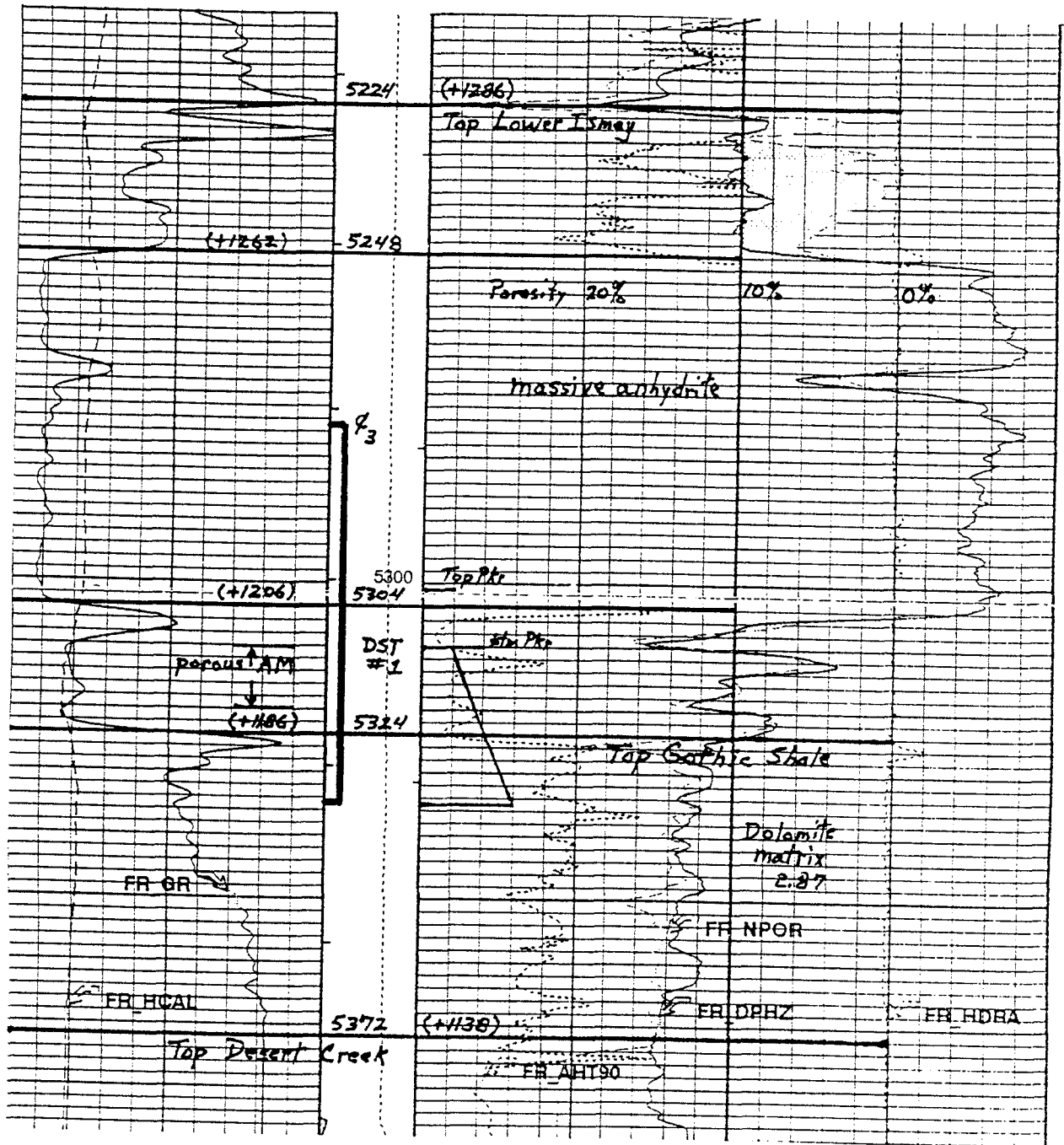


FIGURE 2: Neutron/Density Log of Lower Ismay zone in the ST Oil #1 Marie Ogden well showing tops, cored intervals, and DST interval.

## REFERENCES CITED

- Baars, D.L., 1962, Permian system of the Colorado Plateau: AAPG Bull., v. 46, p. 149-218.
- \_\_\_\_\_, 1979, The Permian System, in Baars, D.L., editor, Permianland: Four Corners Geol. Soc. Guidebook, p. 1-6.
- Baars, D.L., Parker, J.W., and Chronic, J., 1967, Revised stratigraphic nomenclature of Pennsylvanian system, Paradox basin: AAPG Bull., v. 51, p. 393-403.
- Baars, D.L., and Stevenson, G.M., 1977, Permian rocks of the San Juan Basin, in Fassett, J.E., and James, H.L., editors, San Juan Basin III, New Mexico Geol. Soc. Guidebook, p.133-138.
- \_\_\_\_\_, 1982, Subtle stratigraphic traps in Paleozoic rocks of Paradox basin, in Halbouty, M.T., editor, Deliberate Search for the Subtle Trap: AAPG Memoir 32, p. 131-158.
- Baker, A.A., Dobbin, C.E., McKnight, E.T., and Reeside, J.B., Jr., 1927, Notes on the stratigraphy of the Moab region, Utah: AAPG Bull., v. 11, no. 8, p. 785-808.
- Baker, A.A., and Reeside, J.B., Jr., 1929, Correlation of the Permian of southern Utah, northern Arizona, northwestern New Mexico, and southwestern Colorado: AAPG Bull., v.13, no. 11, p. 1413-1448.
- Blakey, R.C., 1979, Lower Permian stratigraphy of the southern Colorado Plateau, in Baars, D.L., editor, Permianland: Four Corners Geol. Soc. Guidebook, p. 115-130.
- Cross, Whitman, and Spencer, A.C., 1899, Description of the La Plata quadrangle [Colorado]: U.S. Geol. Survey Geol. Atlas, Folio 60.
- Cross, Whitman, and Howe, Ernest, 1905, Description of the Silverton quadrangle [Colorado]: U.S. Geol. Survey Geol. Atlas, Folio 120.
- Gilbert, G.K., 1875, Report on the geology of portions of Nevada, Utah, California, and Arizona, examined in the years 1871 and 1872: U.S. Geog. And Geol. Surveys West of 100<sup>th</sup> Meridian Report, vol. 3, p. 21-187.
- Grammer, G.M., Eberli, G.P., Van Buchem, F.S.P., Stevenson, G.M., and Homewood, P., 1996, Application of high-resolution sequence stratigraphy to evaluate lateral variability in outcrop and subsurface – Desert Creek and Ismay intervals, Paradox Basin, in Longman, M.W., and Sonnenfeld, M.D., editors, Paleozoic systems of the rocky Mountain region: Rocky Mountain Section, SEPM, p. 235-266.
- Gregory, H.E., 1917, Geology of the Navajo country – a reconnaissance of parts of Arizona, New Mexico, and Utah: U.S. Geol. Survey Prof. Paper 93; 161 p.

Hite, R.J., and Buckner, D.H., 1981, Stratigraphic correlation, facies concepts, and cyclicity in Pennsylvanian rocks of the Paradox basin, in Wiegand, D.L., editor, *Geology of the Paradox basin*: Rocky Mountain Assoc. of Geologists Guidebook, p. 147-159.

Peterson, J.A., and Ohlen, H.R., 1963, Pennsylvanian shelf carbonates, Paradox basin, in Bass, R.O., and Sharps, S.L., editors, *Shelf Carbonates of the Paradox Basin*: Four Corners Geol. Soc., Guidebook, p. 65-79.

Stevenson, Gene M., 2000, Geology of Goosenecks State Park, San Juan County, Utah, in *Geology of Utah's Parks and monuments*; Sprinkel, D.A., et al, editors; 2000 Utah Geol. Assoc. Pub. #28, p. 433-447.

Stewart, J.H., 1957, Proposed nomenclature of part of Upper Triassic strata in southeastern Utah: AAPG Bull., v. 41, no. 3, p. 441-465.

\_\_\_\_\_, 1959, Stratigraphic relations of Hoskinnini member (Triassic?) of Moenkopi formation on Colorado Plateau: AAPG Bull., v. 43, no. 8, p.1852-1868.

Ward, L.F., 1901, Geology of the Little Colorado Valley: Am Jour. Sci., 4<sup>th</sup> Ser., v. 12, p. 401-413.

Wengerd, S.A., and Matheny, M.L., 1958, Pennsylvanian system of Four Corners region: AAPG Bull., v. 42, no. 9, p. 2048-2106.

---

Thank you for the opportunity to be your consulting well site geologist.  
It has been a pleasure.  
Sincerely,

---

Gene M. Stevenson, CPG #06232



## HISTORICAL OVERVIEW

### MARIE OGDEN LED SPIRITUAL GROUP IN SAN JUAN COUNTY

W. Paul Reese

*History Blazer*, April 1995

In September 1933 a band of religious settlers led by Marie Ogden chose Dry Valley, about fifteen miles north of Monticello, as the headquarters for their spiritual community. Shortly after arriving, Ogden purchased the county's only newspaper, the San Juan Record, which she continued publishing. The only change in its format was the addition of Ogden's column, "Our Corner," in which she declared her revelations on "metaphysical truths." These writings failed to rouse much excitement in southeastern Utah—at least not until April 4, 1935, when she included a new section called "The Rebirth of a Soul."

Ogden's original followers came mostly from around Boise, Idaho, where she had been lecturing on occult subjects prior to her move to Utah. But her occultism can be traced farther back than Boise. Following her husband's death in 1929, Ogden devoted her life to spiritual studies and for a time formed an alliance in New Jersey with another spiritualist, William Dudley Pelley. In 1909 he began issuing his own "religio-sociological" monthly called the *Philosopher* and over the years owned several newspapers that he used to spread his message. Ogden found that she disagreed with some of Pelley's emerging political leanings, and to prevent contamination of her followers she broke ties with Pelley and removed her School of Truth from his organization.

By this time, Ogden was spiritually independent anyway; she had developed her own link to heaven. She claimed that her typewriter, through divine manipulation, received messages that told her God's will; it began directing her to seek out the spot where God's "kingdom" should be built. In the meantime, she toured the country, lecturing, spreading truth, and establishing reading societies and study groups. Eventually, messages from her typewriter informed her that Dry Valley in southeastern Utah was the axis of the earth and that she should locate her Home of Truth there. Upon arrival in Utah, Ogden, having learned something from Pelley, bought the local newspaper to use in disseminating her message.

Ogden's small band of believers followed her to the Beehive State's desert country and busied themselves in establishing God's kingdom. To qualify for membership in that kingdom colonists had to renounce all personal goods, become semi-vegetarians, and pledge obedience to the "word" that came from Marie's typewriter. The group of truth seekers lived communally and largely relied upon the Lord to provide daily sustenance. They built their kingdom in three groups of buildings, the innermost of which housed Ogden's "Home of Truth" where several times a day her typewriter came alive with revelations from heaven. According to the revealed "word," Marie's Inner Portal was the very axis of the earth where only those present when the terrible and imminent last days arrived would be spared.

Generally, local Mormons could identify with aspects of Ogden's organization, and most just looked on curiously. Then on February 11, 1935, one of the colonists, Edith Peshak, died of cancer. Peshak had joined the Home of Truth after Ogden promised a cure for her sickness, but the leader's spiritual therapeutics proved ineffective and Peshak died. Ogden asserted, however, that the stricken believer was simply in a state of purification and would soon return to life. Ogden received messages from the dead woman, and three times daily helpers washed Peshak's body in a salt solution and fed it. Ogden herself spread news of the metaphysical truths behind her actions, publishing them in the Record under the heading "Rebirth of a Soul." Needless to say, rumors quickly spread throughout Monticello and into neighboring communities.

Eventually, Sheriff Lawrence S. Palmer ordered a forcible investigation for sanitary purposes. The county attorney, a doctor, and a nurse were all allowed to view the corpse. The doctor found Peshak's body to be in a perfect state of preservation, leaving the attorney no legal grounds to force its burial. In the ensuing two years the rumors subsided, but many of Ogden's original thirty colonists apostatized. Only a dozen or so were left in February 1937 when Ogden again drew attention to her community by announcing that Peshak would soon return to life.

Authorities revived the case and demanded a death certificate be signed. Ogden refused, insisting that Peshak was not dead. Officers searched the Home of Truth but failed to find the body. Finally, Tommy Robertson, a former follower of Ogden came forward. He declared that two months after the original investigation Ogden had ordered him to wrap the body in two sheets and a thin mattress and carry it to a dry wash nearby. Ogden had supervised as Robertson built a pyre of wood and laid the mummy upon it. He soaked the whole mass with oil and lit it on fire. His testimony ended the investigation and nearly ended Marie Ogden's Home of Truth. Following this debacle only a handful of members persisted in the commune, feebly continuing to build the kingdom.

Decades later, the final curtain fell on this unusual religious drama when the contents of Marie Ogden's Inner Portal were sold at auction on October 1, 1977.

Sources: Wallace Stegner, *Mormon Country* (Lincoln: University of Nebraska Press, 1970), pp. 331-43; *San Juan Record*, April 4, 11, June 20, 1935; *Times Independent*, June 13, 20, 1935; Leo P. Ribuffo, *The Old Christian Right: The Protestant Far Right from the Great Depression to the Cold War* (Philadelphia: Temple University Press, 1983), pp. 26-27; auction broadside in USHS Library



Marie Ogden, a native of New Jersey, came with thirty followers to Dry Valley in San Juan County, [Utah] to establish the "Home of Truth" (From McPherson, 1995. p. 307).